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STANDARDIZATION OF THE RURAL SCHOOL PLANT

The Problem.—Standardization of the material equipment of schools is but an effort to bring modern science "down to brass tacks" in the service of the public good. The people of the country are far more willing than many pretend to make possible a reorganization of rural education to meet the needs of the country-life problem, and they are seeking an answer. To practical students of rural sociology, it is a cause of great satisfaction to see how the farmers in every part of the United States are at work studying their problems; flocking to experimental farms, to demonstration trains and to lectures; taking farm magazines, experimenting with new devices and sending their sons and daughters off to state colleges for rural life education. Wherever they find a real leader, a teacher in the school district, a county superintendent of schools, an enterprising farmer, or a state or national official sent out for the purpose, they are using him for all he is worth to help them meet the situation.

Those who say that farmers are very conservative and backward, that they will do nothing, and that every one must be afraid of "starting something" for fear of their objections, that the farmers of a particular community, county or state are hyper-sensitive and unwilling to be shown or led, and who justify their lack of leadership by such excuses, either do not have the qualities of leadership, do not know how rural life in any particular direction should be led, or vastly underestimate the quality of the real American people. Any careful study of what farmers are actually doing for rural-life improvement all over this broad land will furnish ammunition for converting or eliminating the timid, the political 'fraid-'o-cat, and the follower who inhabits the shoes of a leader. It is a time for hope and courage, not a time for Hamlet-like indecision or despair.

"Years ago," says David Starr Jordan, "in a poor region of southern Indiana, I came across the track of a man whose remarkable influence for good on the community was as evident as the footprint of the mastodon in the fossil-bearing rock. The man had long since passed on, but the influence of his leadership was permanently there, distinguishing that community from any surrounding it." There is the essential factor, the same factor which Governor Brumbaugh has so admirably emphasized, the factor of public educational leadership.

When we look over the country and see the results of thousands of progressive experiments for solving country-life problems; when we piece these together and see their meaning in combination; when we see the economic and social needs of the country scientifically analyzed and demonstrated, and the solutions clearly shown in actual objective form—then we are ready to say to farmers seeking solutions of their many dilemmas, "Here is something definite and tangible which we know is a success. We have specialized in this particular phase of rural-life improvement, and we want you to go over it with us and see just what it will do; and, if you are convinced, we hope you will do as thousands

of other communities are successfully doing, put the thing into practise. It will have some noticeable effect upon keeping boys and girls on the farm, instead of their running off to the city as early as they can; it will make possible an easier life, more happiness and desirable leisure; it will make possible the growing of superior apples, poultry, cattle, hogs and grain where you now obtain inferior products; it will make 'mother less a slave' and will even help to solve the middle-man problem. Do you want to try it?"

We are not here to discuss methods of community leadership. Some are born leaders, some achieve leadership, and some have the office of leadership thrust upon them. All who in any way possess such offices will do well to study carefully practical social psychology and the methods used by great business corporations and other agencies for moulding public opinion in our democracy. We are here rather to discuss the problem of the standardization of the rural school plant—of what standards shall be set up for rural school plants and how these may best be arranged and used for moulding public opinion in a special direction and stimulating desirable effort on the part of school communities to rise to the standards set.

Standards and the Standard School.—A standard-bearer is a leader, one who helps humanity on. The standard is an ideal, more or less realizable, for achievement and measurement. We have standards of weight, of temperature, of length, of living, of decency, of etiquette, of measurement of handwriting, of arithmetic, etc., of fireproof construction, of business economy and scientific management, of methods of antiseptic surgery, of physical endurance and achievement in many fields, and many others. Some of the valuable characteristics of good standards are as follows:

A. That they take the indefinite and vague and make it specific and clear.

B. That they are based on definite scientific laws or generally-agreed-upon principles, units and elements.

C. That they hitch our wagons to a star but keep the hitch long enough for our wheels to remain on the ground.

D. That they are of great educative and formative value in bringing up an entire population to higher levels of civilization. Clocks, sewing machines, pianos and bathtubs are rapidly becoming standard elements of American homes where but a few decades ago they were absent—the proud possessions of the aristocracy.

E. That they are closely related to the solution of dominant life problems.

F. That they are, therefore, of immeasurable value in times of change and transition like the present, "when new occasions teach new duties and time makes ancient deeds uncouth."

The dominant life problems of the rural population are the dominant problems of its principal common institution, the public school. That type of school should be held up and made a standard which most completely meets the needs and demands of the times. We are petty and insignificant indeed if we set up as standards mere relics of ancient instruments which, little better than those now in use, will solve the problems of the present and of the future. Since, further, the conditions of life and its environment are so varied, the highest standard may not be achievable by all, and it will be desirable to fix two or more standards. There is also danger of setting standards too low, but there is little or no danger in setting high ones if there are several intermediate steps grading up to the highest.

Rural Education and Rural-life Needs.—According to my best present judgment,

the rural population need for their education the following essentials:

1. A permanent rural-life leader who can make a specialty of community education in a single district as a life work.

2. Schooling that is directly and immediately related to country life and its needs.

3. Methods of education in accord with the nature of the learning process in children and youth.

These factors would require buildings and grounds suitable to the solution of the people's dominant problems such as those of health, vocation, socialization and recreation. Evidently these factors will also demand an experimental or demonstration farm and will require the time of the leader or principal twelve months in the year. To secure such a leader, three or four times the average salary now paid country teachers will be necessary. However, the school farm of a suitable size and quality will furnish produce and house rent to cover perhaps half or more of such salary. Evidently, too, it will be uneconomical to attempt to provide such a school-home-farm and rural-life leader in connection with every little one-room building which we have inherited from pioneer days when such buildings were desirable and necessary. Thousands of successful experiments show that children can come, or be transported, for upwards of an hour's journey to a centralized or consolidated school, making necessary only one farm, one school building, and one leader instead of several.

In Germany, where farmers live in villages and drive out each day to their farms, such transportation or long walks to school are not as necessary as in a country where each farm house is an isolated entity far from other homes. But the farmers of this country are rapidly centralizing in villages, largely for better educational advantages, and the consolidated school will to a desirable degree help the movement along by making the rural school instead of the town the center. Good roads, free rural delivery, and innumerable autos, half of them now owned by farmers, are solving the transportation problem.

At such a school there can be the home ("teacherage" or "manse") of the principal, a trained rural life leader, who will inevitably in most cases be a married man with a family. If the school has several other teachers there will be also a house for them. There will generally be necessary a janitor and caretaker, a man of all work, who can also in certain cases act as a driver, and a house for him. And in some cases there are now cottages for all the drivers of the school vans, as in Dakota. In some cases, also, teachers board at the home of this workman. These extra cottages may usually be the old abandoned, one-room school buildings, remodeled perhaps by the students of the school after being brought in. The land of the abandoned schools when sold will perhaps provide some money for such remodeling, although the land used for school sites is usually not the most desirable in the community.

Barns for demonstration, for storage, and for housing the horses or autovans that bring the school children in daily will also be needed. The school will require certain sanitarily and educationally planned class-rooms, a library, a large assembly room for social center and other meetings, farm craft or manual training rooms, a room for experimental agriculture and gardening, a domestic science room and other features. The teachers will have a good boarding place under the leadership of the domestic-science teacher and some social life; the principal need not, like the monks of old, take the vow of

celibacy and poverty; and a farm-life center, vastly improved supervision and length of tenure, and education by experience will be an accomplished fact.

Photographs, plans, explanations, specifications and estimates of cost, for such model rural-school plants are easily obtainable, especially in Dr. Dresslar's admirable bulletin, entitled "Rural Schoolhouses and Grounds," just out, which every one interested in rural life improvement should immediately secure from the U. S. Bureau of Education.

This, then, must become the first standard rural school plant. To many it will appear to be only a star, but such centers are appearing on this earth in our own United States too rapidly and in too great numbers to say that heaven can not be brought to earth. The state of Washington, rough and mountainous and sparsely settled as it is, had, for example, 83 teachers' cottages up to last March and these have all come about in the last few years. (I do not think there were a dozen when I traveled over the state for the University of Washington in 1909–10.) Statistics show that there are over 400 teachers' cottages furnished with public schools in the United States. Several states, notably Louisiana and Minnesota, require at least ten acres of land for agricultural purposes in connection with every school receiving state aid for teaching agriculture. There are probably 6,000 consolidated schools furnishing free transportation. Many valuable facts in this field are now being collected by the Bureau of Education and the American Society for the Advancement of Agricultural Teaching.

Principles of Standardization.—Some further principles underlying the standardization of the rural school plant may be summarized as follows:

1. In establishing standards for rural schools, other factors than buildings, grounds and equipment must be taken into consideration, such as the qualifications of the teacher, the efficiency of instruction and management, adjustment of the school work to community interests and needs, etc. The various physical standards offered in this paper are constructed with a view to their correlation with these other factors in any use of standards for rural school improvement.

2. Standards should be worked out with the greatest care and should be annually revised where necessary or desirable. We need a commission in each state to elaborate such standards by wide investigation, by experiment, etc. Such problems as unilateral lighting, the use of movable school desk-chairs or fixed desks and seats, the use of hygrometers, the best ventilation devices, the proper kinds of wall colors and materials, the use of picture mouldings, the best type of outdoor and indoor toilets, north lighting *vs.* east or west lighting, and many other features have not yet been scientifically nor practically settled. Too many of our standards will not bear searching investigation. They must be made more scientifically and carefully than most of us have time for apart from our regular work.

3. The state departments of education and the county superintendents should bear the chief responsibility for establishing, publishing abroad, and getting used, rural school standards. The bulletins of Minnesota, Michigan, Missouri, Alabama and Illinois, several of them published in 1914, will prove helpful, as well as two publications of the U. S. Bureau of Education and the various books on rural education, such as Betts and Hall's "Better Rural Schools," Cubberley's "Rural Life and Education," and Carney's "Country Life and the Country School." Teachers

must first be educated up to the new standards, then the directors, and then the people at large. The work of educational publicity is of the greatest importance. Every type of premium should be set upon such advance.

4. Too much emphasis can not be placed upon the form of the publications. Most state and county publicity matter is printed in atrociously fine print, on poor paper, with unsatisfactory illustrations, and generally bad workmanship. The bulletins of the first three states above named are of a new order—the three M's, Michigan, Minnesota and Missouri—all printed in 1914. There should be many line drawings of plans and other desirable features, and also many photographs. Dresslar's volume is a model here. Better say less and get it into a form that makes an impression by being read and pondered, or use more pages for the bulletin.

5. Too much emphasis can hardly be placed upon the volunteer and cooperative work that can be done by communities in improving their school plants. The bulletin may well show how old buildings may best be remodeled and how various communities have set to work to improve them. Superintendent Rapp's (Berks County, Pennsylvania) bulletins frequently speak of the use of Larkin's soap wrappers to secure improvements for standardization, for example. Recently a normal school teacher went out to a rural school to teach merely to show what could be done, and it was not long until she had several men with their teams digging out a school basement free of charge. In some places the school boys have completely remodeled an old school as manual training work, and some have even built new school houses. These methods should be discussed at every county institute. Stereoptican views and actual models of standard school plants should be widely used with patrons and directors.

6. Not only should metal door plates and diplomas be given, but some method should be devised for checking off each item of the standards that has been attained. In Oregon, the standards for a school are printed on a single heavy sheet of paper, and the county superintendent on his visits sticks up a star opposite each item attained until the school is ready for state recognition. The signature of the superintendent opposite each item would perhaps be as satisfactory. This would prove a constant stimulus to teachers, pupils and patrons.

7. Recognition as standard schools should be given for periods probably not longer than a year. This has been found desirable in states like Illinois, where the standardization movement started. It prevents back-sliding and provides for constant stimulus.

8. State appropriations of varying amounts for the different standards may well be offered as inducements. Twenty-five to a hundred dollars added each year for certain definite improvements have been found to be of immense value in accelerating the standardization movement. For consolidated schools much more should be offered. If our present state appropriations in Pennsylvania, for example, were not given on the basis of number of teachers employed and number of children in the district between the ages of six and sixteen, whether in school or not, but were given on the basis of the *aggregate daily attendance* and number of teachers, a considerable premium would be placed on regular attendance and longer terms of school, two important items of standardization of schools.

Six Standard School Types.—Taking into account, then, the tremendous need

and desirability of standards for rural school plants for rural-life improvement and the many practical factors underlying their successful use, I wish to propose here for criticism six types for standard rural school buildings, grounds and equipment, three for consolidated and three for one-teacher and simple union schools without transportation. They grade gradually downward from the highest type of consolidated school to the typical one-room box-car school of the present. I shall treat each set in reverse order.

I. STANDARD CONSOLIDATED SCHOOLS

3. Number Three Consolidated, Grade C, or Simply Standard Consolidated School, a well-graded rural school with at least three acres of land, conveniently located, conforming to all the essential requirements of the highest type of the single-teacher school, to which pupils from outlying districts are transported, usually at public expense. Careful grading, more than one teacher, transportation, and sufficient land are essential to distinguish the lowest type of consolidated school from the usually poor type of "union" school as defined by Betts and Hall,[1] as "two or more district (one-teacher) schools united in one enlarged district or semi-graded school."

2. Number Two Consolidated, Grade B, or Superior Consolidated School, meeting the requirements of number three and exceeding it by requiring over three, but (perhaps) not less than ten, acres of land, an assembly room seating at least 300 persons comfortably and safely, and an agricultural high school of at least two years' work.

1. Number One Consolidated, Grade A, or Excellent Consolidated School, with ten acres or more of land, an assembly room at least as good as that of number two, rooms for agriculture and domestic science, etc., an agricultural high school four years in length, a home for the principal, half of the land to be used for practical demonstration farming, and perhaps cottages for the other teachers and for the man of all work.

We can not take the time to give in detail the various specific requirements for external features of these schools. Floor plans, descriptions, photographs, specifications and estimates of cost are given in a number of the references named. No state has yet attempted, however, fully to standardize these schools by grades or types, and state aid and money premiums are not yet given in all for the various features. Many states do have good bulletins on school architecture, including consolidated, and perhaps most have special bulletins of a general nature on consolidated schools.

II. STANDARD ONE-TEACHER AND UNION SCHOOLS

3. Number Three, Grade C, or Simply Standard District or Non-consolidated School. The standards for this lowest type of recognized school should be those of our better single-room or union schools now so common, attainable without great cost nor entire rebuilding in most cases. I would not require unilateral lighting here, for example, but a preponderance of light from the left, such as could be obtained by cutting in two to four windows on the left of the pupils at a cost of fifteen to thirty dollars. The standards of many county and state superintendents and the standards set by the N. E. A. Committee, Dr. T. D. Wood, chairman, could be studied to advantage here. The Alabama and Montana plans of giving a certain number of points for each feature and requiring a certain combined score seem to me superior in certain ways

[1] See their book on "Better Rural Schools," pages 228–230.

to the more general and vague requirements.

We give below certain essentials of the physical features of such a school, without, however, giving the scoring for each item.[2] All *new* schools and grounds should follow the standards for the highest type of the single-room school, and these new schools should be constructed only after careful consideration of the feasibility of consolidation. It has been found in several states, however, that the people will abandon small schools that have been standardized when once they become convinced of the importance of consolidation for rural life and education. All consolidated schools should be standardized by the state departments of public education and all new schools can be standardized to a large extent by carefully utilizing the power of proposing and rejecting plans. The certificates for the standardization of the two lowest types of schools may be left to the county superintendents, subject to check by the state departments. Each point should be made as specific as possible, *e. g.*, requiring at least an acre or two acres instead of merely "ample playgrounds." Different types of buildings will be required for buildings facing roads running in various directions if we set the standard of east or west lighting. Appropriate exercises should accompany the presentation of certificates and door plates by county or state officers.

SCHOOL GROUNDS

1. At least an acre of land in the entire school site, three or more acres desirable.

2. Well drained and level and fertile enough, in the judgment of the inspector, not to interfere with the best work in the way of play, school gardens, and the like.

3. Not more than two miles from the most distant home if pupils walk and not more than six miles or an hour's ride for those transported.

4. A good driven well with pump, preferably a force pump with a pressure tank for inside drinking fountain and lavatories.

5. Two well-constructed, rainproof, well-ventilated, and sanitary privies at least fifty feet apart, or, if close together, separated by a partition seven feet high and twenty feet or more in length, indoor toilets preferable. All outhouses to be sand painted, screened by perennial vines, and also screened against flies and mosquitoes. Outdoor toilets may be of the three following types: Dry earth closet, septic tank container, or with a watertight vault or box.[3]

6. At least four shade trees well arranged on the site, well cared for, and protected.

7. At least the following play apparatus: one turning pole and one playground ball and bat owned by the school for the boys, a sand box not less than eight feet long, four feet wide and ten inches deep, and one swing, for the little children, and two swings for the older girls. Tennis, croquet and volley ball sets owned by the school are also desirable.[4]

8. If there are fences they should be in good repair.

9. A four- to six-foot gravel, cement or cinder path leading from the road to the main entrance of the school and similar paths from the school to the outhouses if any.

10. If fuel is not kept inside the main building there should be a good well-painted and dry fuel house, convenient to the school.

11. A flag-staff and flag in good condition.

BUILDING

1. Large enough to include, besides a standard classroom, separate cloak rooms for boys and girls, well lighted and conveniently arranged, and not less than five by six feet in size, respectively.

2. Outside well painted within the past six years, if of frame construction.

3. Doors opening outward and in good condition with good locks.

4. All windows screened with coarse protecting wire screens. Fly screens on windows and doors

[2] The Alabama form of score card can be found in Vol. I. of the Report of the Commissioner of Education for 1913, pages 171–72.

[3] See chapter on "Sanitary Privies for Rural Schools" in Dresslar's bulletin on "Rural Schoolhouses and Grounds."

[4] The teacher and superintendent are here referred to Curtis's "Play and Recreation for the Open Country."

to be used in September and October and the last two months of school in the spring.

5. No shutters on windows.

6. Roof in good condition to prevent leaking.

7. No marks or carving on outside walls.

8. Good water-proof foundation.

9. A porch is desirable.

10. Workroom or rooms, and a library, separate from the main rooms by door or partitions with glass for supervision purposes also desirable.

CLASSROOM

11. Not less than $22 \times 30 \times 12$ feet in size, preferably $24 \times 32 \times 13$. Any of the types of schools recommended by Dressler in his bulletin, mentioned above, may be used. The room should be large enough to provide for social center activities.

12. At least 15 feet of floor space and 200 cubic feet of air space for each pupil enrolled.

13. No platform for teacher's desk.

14. Floor of oak, maple or hard pine, tongue-and-grooved, and well put down, preferably upon a floor laid diagonally with the joists. Double floors are essential for warmth.

15. Floor well oiled. New floors should have boiling oil, in which a pound of paraffine to a gallon of oil has been dissolved, well rubbed into them.

LIGHTING

16. Classroom should be lighted predominantly from the left of pupils as seated.

17. Glass space on left equal to at least that on the right and rear combined.

18. No windows permitted at front of room.

19. Glass space to equal *at least* one fifth of the floor space except where mountains, hills, trees or other obstructions to light, raise the horizon line above an angle of twenty degrees on either side. Then *at least* one to four should be the ratio between glass and floor space.

20. Left lighting should be from east or west of pupils, as seated, not from north or south, except for buildings already erected. (Buildings of various types to provide east or west lighting from left on roads running in any direction should be recommended.)

21. Windows on the right or rear of the pupils as seated should preferably be principally for ventilation, "breeze windows." Single sash on pivots or hinges above the blackboards, at least seven feet from the floor, should take the place of long windows here.

22. All windows should reach as near to the ceiling as possible, not less than twelve inches, measured from the top of the upper pane, for this standard.

23. Tops of window square.

24. Bottoms $3\frac{1}{2}$ to 4 feet from floor.

25. Light at least 2 candle power on a fair or semi-cloudy day at darkest part of room as measured by the Sharp-Millar photometer.

SHADES

26. Light tan in color, translucent, preferably of cloth, and the roller easily movable to any part of the window.

27. No shades on windows into which the sun does not shine. Shades must not cut off much more than the bright and blinding rays of the sun.

WALLS AND CEILING

28. At least twenty linear feet of slate blackboard four feet in width, preferably on the front and right walls, half of it low enough for younger pupils, 26 inches.

29. Walls beneath blackboards and to a level with their tops, light buff or dark gray in color; from top of blackboard to required picture mouldings on level with tops of windows or doors, light tan or light gray; and above picture mouldings and on ceiling, cream or white. The mouldings may well be eighteen inches below the ceiling.

30. All framed pictures to be hung by two wires each from picture mouldings which reach entirely around the room, except where interfered with by windows or doors.

HEATING AND VENTILATING

31. Heating by jacketed stove with fresh air inlet about 12 inches square and outlet for "foul air" about 16 inches square near the floor on the wall near the stove or by a basement furnace.

32. Required to keep the humidity at all times above 40 per cent. of saturation and to provide 30 cubic feet of air per minute per pupil enrolled. (Standards here should be even more specific.)

33. Windows should be easily movable by the teacher and at least four wind deflectors, preferably of glass, one to be placed at an angle at the bottom of each of two windows on each side of the room. Either four deflectors so placed or four window boards required.

EQUIPMENT

34. Individual desks, adjustable, and, preferably, movable, suited to children of all ages.

(More specific as to sizes perhaps, say six sizes in six rows of seats.)

35. A good desk for the teacher.

36. At least two chairs.

37. At least twenty feet of book shelves in cases with good locks, such cases preferably built into the wall at the front and left of the room.

38. At least 25 books suitable for school children, not counting supplementary reading or other books, or text-books, ten new ones to be added each year.

39. At least four good wall pictures.

40. A thermometer and hygrometer, preferably combined, and direct reading like a clock.

41. A set of good maps in a roller case (including one for the state, one for the county, one for the United States, two of the world, and one of each of the grand divisions).

42. A twelve-inch globe.

43. One large dictionary and at least two small dictionaries with good print, not less than eight-point type.

44. One set of supplementary readers, not less than ten in number.

45. At least two boxes of dustless crayon, pointer, coal hod, waste basket, good broom or brush, no feather duster, shovel, poker, coal hod, if coal is used, and saw dust or other sweeping preparation.

46. If there is no force pump, there must be a closed tank with sanitary drinking fountain.

47. Common and individual cups abolished.

48. Paper towels to be furnished, also a wash-bowl and mirror.

49. All needed supplies to be on hand at the first day of school in the fall and no delay to be caused by the lack of any supplies.

These constitute the chief standards for standard school number three, placing it on the plane with good country schools everywhere. Most states have laws for enforcing certain minimum standards of comfort and decency. The above standards are little higher than those required by law and should not be lowered in any particular perhaps for fear of standardizing and dignifying what is low and objectionable. The amount of striving necessary to attain this standard on the part of nearly any school in our country is perhaps not great nor impossible.

2. Number Two, Grade B, or Superior Non-consolidated School.—The additional standards here should probably be:

One acre of play ground *at least.*

A well-cemented and lighted basement, with basement furnace.

A library room.

More required books, both library and supplemental. Indoor toilets preferably on the first floor, but may be in basement. Force pump and pressure tank with bubbling fountains in cloak rooms, or in basement and classroom.

The principal increase in standards here will be in the qualifications of the teacher perhaps.

1. Number One, Grade A, or Excellent Non-consolidated School.—This school is the ideal of what a one-room school should be in a place where consolidation is a long way off or impossible. It may well have a small farm, a teachers' cottage, a first-class building, a model teacher, and plenty of desirable school supplies. This school should be the star of all schools that can not expect soon to be consolidated schools. When it is a union school with two rooms but without transportation it is very near the consolidated type. The model school at the Kirksville Normal School in Missouri is of this type and all rural normal schools should have such a school and frequently, also, a consolidated school for observation, experimentation and practise teaching.

I have not time here to work out in detail the requirements for the highest standard.

In conclusion let me urge the great importance of establishing, publishing and using such plans and standards, not these, but thoroughly worked out standards. They will do more for the improvement of the rural schools than perhaps any other one thing that we could provide. State and county superintendents in all parts of the United States have expressed their surprise at the phenomenal readjustment of the rural-school plants to such standards as soon as they have been widely and wisely promulgated among teachers, newspapers, directors and patrons. The county superintendent of any state who each year would have most of his schools up to the highest standards would get a national reputation

for good work, well deserved. Such statistics when published in the annual reports of the state superintendents would mean much. Graphs and maps showing the relative standing of different counties are now being used with telling effect in rousing community feeling and county emulation. Let the good work go on.

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A FOUR-YEAR COURSE IN SCIENCE IN THE HIGH SCHOOLS[1]

With the phrasing of the topic assigned me, I take exception in one particular, but this exception that I take is conditional. If the word *course* be taken to mean a straight path, as it were, without divergent or alternative branches, then my paper does not fit my title. Nor, in my opinion, does *such* a course fit the high schools. But if the word course is applicable, figuratively speaking, to a path which is straight and single at first, and then branches, and if our word may include the branches as well as the single and common path which leads to them, then my paper and its title are in accord.

One other qualification needs to be made at the outset. Under the pressure for vocational education there has been a tendency to increase differentiation of programs at the very outset of the pupil's high-school course. We find in some cities numerous kinds of two-year programs leading (or misleading) to various occupations, and the extent of the *differences* in these programs is even greater than the extent of the *elements they have in common*. In an essay of Robert Louis Stevenson, first printed only the other day, he wrote, "Education, as practised, is a form of harnessing with the friendliest intentions." Here, then, is a form of harnessing with a vengeance, a form of harnessing which, if it continues to prosper, will have its prosperity in a country which has become democratic in name only.

To such cases the proposals of this paper do not apply. They apply rather to cases in which the principle of *major quantity of common elements and minor quantity of electives* is a guiding principle in making out the program. They apply rather to cases in which differentiation does not cut much figure until the third year is reached. They apply to general programs rather than to special programs.

In broad outline the plan supported is the plan to have in the first two years a required general or "stem" course, from which the electives of the upper two years may be considered arising as branches. This "stem" course is technically designated later in the paper as "two-year science," that it may thereby be clearly distinguished from what has come popularly to be known as "general science," an expression which stands for a course not longer than one year.

The contrasting characteristics of these two kinds of first science need to be clearly grasped, and more detailed definition of them is presented as follows:

General Science.—A one-year course which disregards the natural divisions of science and chooses its materials without restraint. Its avowed aims are to interest children in explanations of common phenomena and to lay an effective foundation for study of special science. Its method is the project method, better known as the nature-study method. Common material or phenomena are to be treated as topics, and the questions arising therefrom are to

[1] A paper presented at the joint session of Section L of the American Association for the Advancement of Science and the American Federation of Teachers of the Mathematical and Natural Sciences, Philadelphia, December, 1914.

be considered without respect to the organization of science. This plan proposes the consideration of phenomena as they happen to be met in the complex of nature, and dismisses the organization of science as not serviceable to its ends. Science shows a method for the study of nature, but this new plan would have nature determine the method as well as the subject.

Two-year Science.—A course which retains the natural divisions of science, holding them to be effective educational units. It, like general science, seeks to interest children in explanations of common phenomena and to lay an effective foundation for later elective study of more specialized science, but it prefers a different method. It holds that the primary divisions of science, which have evolved in man's long study of nature, have large educational value, and it opposes the substitution of a more random method. It holds to familiar and important phenomena of nature as subject-matter, but it holds also that nature has not been in the business of planning high-school methods of study, and that, as to this, such organizations of data as the mind has achieved should be employed in the training of minds. It holds that *organization and unity of subject-matter are essential*, and it opposes any plan which increases for the pupil the vagueness and complexity of underlying principles or treats of these superficially. It calls for extensive use of concrete material as *introductory* and as *illustrative*, but it also calls for the consideration of principles and of scientific organization as *basic*. It holds that what should be the common fund of knowledge of science, and of grasp of its general principles, can not be effectively taught in *less* than two years.

General science, as defined above, is a dangerous thing. It is dangerous because it is subversive of the best which there is in science for education, and it is doubly dangerous because the majority of those who support it are not in a position to discern, through critical analysis, the real dangers it contains. Like many another proposal proved unsound in the past, it has a strong initial appeal, and is susceptible of being variously misapprehended.

Upon analysis, the very popularity of this course is confirmatory of its weaknesses. Let us note as historical that the first popularity of courses has proved no index of their permanent worth. In fact, the evidence runs just the other way. The relief which a new plan offers from a particular educational pain often obscures foresight as to the greater pains it may itself soon inflict.

So as to general science: it is the first conspicuous step of high-school science toward soft pedagogy. Very much has been done in twenty years to bring science to the educational level of the high-school child. Contrast the texts of to-day with the texts of twenty years ago. And all this gradual, time-tried and natural improvement has been accomplished without setting aside that fundamental of science, its logical unity of organization.

Now comes a proposal to abandon this unity and to follow as guide the manifest interest of the child. *Manifest* interest of the child is usually the temporary excitement of the child, and it has already proved its danger as chief guide to any educational plan. It has proved a will-o'-the-wisp which has led into many an educational swamp. Even now we see teachers of many subjects struggling to get out of such swamps. Yet here are some teachers of science struggling to get in. It is true they have come to a parting of the ways. The path they have been following approaches its end. Guide-posts point to a firm, clear path ahead, but the swamp is

seductive, and sincere leaders, themselves misguided, are pointing that way.

We hear of this school and that where general science has been successful. We have not time here to analyze these cases. Suffice to say that analysis has shown the success of such cases to be dubious. Yet even if it be real, a fundamental objection to general science remains, namely, the objection that it does not fit the case for our teachers in general. Here is another point which needs more analysis than we can give, but any one who goes into the matter and gets the cold facts will quickly perceive the cogency of this argument. A general plan for high-school teaching which fails to consider the teacher in general as well as the teacher in particular has an obvious weakness. Our plans must fit those who are to fulfil them, and the typical science teacher of to-day must have plans which are quite definite rather than plans which are quite vague.

It is time for those who believe that real science is important in general education to make themselves clearly heard. It is high time to realize what this proposed travesty of science really is, and what it really menaces.

> A defect which constitutes a great peril for the future of the American nation is fear of serious, persistent, intellectual labor, the fear of all that gives mental inconvenience, of all that is called tedious because it is not diverting and superficially entertaining, but which is absolutely essential to a true view of the world.

Thus writes Professor Richard, of Columbia, and we know that his charge is substantially true. Teachers especially know that the shirking of hard intellectual labor is a national peril, and we also know that our chief hope for remedy rests in the training of the rising generation in high schools. But what we do *not* know, or seem to realize, is that the introduction into our high schools of such things as this general science, despite sincere impressions to the contrary, is at bottom a pandering to this very weakness for what is exciting and superficially diverting. For here is a course which avoids the tedium of training to grasp the fundamentals, and in this avoidance of tedium lies more than half its welcome. It is one of the proposed easy roads to wisdom, a road never to be found, yet ever to be advertised. It is because we have been tempted into too many roads like this, into too many courses like this, that we are charged to-day with turning out young people who are "impatient of discipline, insensible to nearly everything but excitement, and who have a permanent mental indigestion due to a permanent diet of tit-bits." Tit-bits, not solid food—that's general science summed up in a phrase.

One reason set forth for the introduction of general science is that special science is charged with failure to relate itself effectively to the daily experiences and interests of the child. But this is not a good reason. It is better as evidence of failure to consider the present status of so-called special science. Special science, in its separate units, as taught in modernized courses, fits the child to-day quite as effectively as general science proposes.

Yet this whole paper must not be mistaken for a defense of the *status quo*. That it certainly is not. For two-year science, which it advocates, is a *change* from the *status quo*, but it is a change which is consistent with the good now existing in that status. It is not a change which abandons all such good and condemns the *status quo in toto*.

Serious faults in the present status of the science courses have long been conceded. There has been too little of *vital* material in the science units, and too much of discontinuity between them. Much has been done to correct the former fault; little

to correct the latter. This is natural, since correction of the latter involves some modification of the school program as a whole, while correction of the former is a matter within the units themselves.

To summarize: In the campaign of reform, the radical progressives have proposed a one-year course which frankly abandons the principles of science in favor of those of nature study, and ranges, as to its subject-matter, freely over the whole field. It is this type of course which the expression "general science" has come most generally to connote. The conservatives have stoutly opposed a course of this type. They claim that it sacrifices that which is of chief value in science in education, namely, its unity of organization, and that thereby it is a positive detriment rather than an advantage to the child. Of course both sides have been equally clamorous of their devotion to the interests of the child, and the one-year general-science advocates have retorted that they *have* a unity in their course, a *"unity that appeals to the child."*

Thus the child is made the court of last resort by both sides, but with this important difference. The radical-progressives would have him be both judge and jury in that court, while the conservatives would have him occupy rather the rôle of the *case* in court, arguing that to his elders rather belongs responsibility for judgment after due consideration of his interests, future as well as present. The radical-progressives appear to let the doctrine of interest be chief guide to their findings, while the conservatives challenge the validity of that doctrine as *chief* guide, and assert the duty and capability of the teacher to lead interest rather than to follow it.

So, on these points, a great deal of argument has arisen, and the argument appears to have obscured somewhat a real basis for agreement. There has been more of defense of the respective positions than there has been of search for common ground. Undoubtedly this common ground will be found in the attempt to agree upon the nature of a *two-year introductory course*, rather than in hot argument about the nature of a one-year course. *For in a two-year course that which the conservatives wish to preserve can be preserved, and what of good the radical-progressives wish to introduce can be introduced.*

Why, then, have these radical-progressives become so infatuated with the one-year general course? The reason is not hard to find. It is simply because it is easier than a two-year course; easier to plan, easier to teach, easier to get introduced, easier to write a book about. Here is all the milk of science before you. Go skim the cream from it and put it in the jug of your course. You will like it and the children will like it. You can very easily make it just as much of physiography, just as much of physics and chemistry, and just as much of botany, zoology and physiology, *as you happen to know.* There is no obligation to be thorough or to be insistent on grasp of fundamental principles. In fact, the obligation is rather the other way, for children are said not to be *interested in fundamental principles.*

So if you can't interest them in such, start something new. Use the "project" method, start exciting little inquiries into the whys and wherefores of familiar things, and, as soon as you get in a little deep and things seem a bit abstruse, start something new. With such free rein you can at least keep up the excitement, and excitement, to the casual observer, often looks even better than serious and thoughtful interest.

Surely some of the dangers of this sort of general science are obvious. Yet small wonder it is popular! Small wonder we

hear that "the children are greatly interested and the course seems a pronounced success." Hardly could we expect to find a better illustration of what has been aptly called "the fallacy of the immediate."

Principals and superintendents are generally ready to allow place in the program for a two-year course, if teachers of science will come to agreement as to its nature. But as long as the teachers themselves lack such agreement, conservative school authorities naturally are reluctant to make radical changes.

Abundant evidence may be cited which indicates that disagreement among the teachers has chiefly arisen from the effort to agree upon the nature of first-year science. The case against making this first-year science a "special science" is a strong case, so strong that there is virtual agreement that first-year science should have a strongly *general* nature, but when it comes to deciding on a plan for the organization of this first-year general science, "virtual agreement" quite fails to describe the situation. Virtual deadlock describes it better. *If one thing has emerged from the whole complex situation it is that there can be no peace and harmony with respect to general science in one year only.* Those who advocate it fail to satisfy the critics with respect to their abandonment of principles of pedagogy and of science, and they fail to satisfy themselves with respect to agreement on what the nature of such a course shall be.

The recent texts which have appeared for one-year general science show wide diversity of ideas. They also illustrate abundantly the pitfalls of inaccuracy which waylay the steps of those who, as authors, venture into fields with which they are not familiar.

But there is no real need for all this confusion. Nor is there need for sacrifice of principles which should be preserved. For if you only *double the time* to be given to this matter of acquiring a general, introductory and practical acquaintance with science, you thereby multiply the simplicity of the situation, and you reduce confusion to order. Allow two years instead of one for your "general science" program, and you can preserve the "good of the old," as well as get the benefits of the new.

In this connection should be noted the report of the biology committee of the N. E. A. Commission on the Reorganization of Secondary Education. This committee, composed of seventeen members well distributed over the country, has had little difficulty in coming to unanimous agreement upon a plan for a general course. *But this plan is for two years rather than for one.* We quote from the report:

> The committee maintains that unity of subject matter in any course in science is of first importance, by which is meant that the subject matter should be so organized that appreciation of underlying principles shall form the foundation of the student's knowledge, thus giving him a scientific basis for the organization of his knowledge.
>
> The committee unanimously agree that two years of work in elementary science should be the basis for the more advanced courses. Such work should deal with physical environment (including a study of matter and forces), plants, animals (including man), and applications of science to human welfare.

It will be noted that the committee takes middle ground. In the two-year course which it advocates, "special science" in any rigid sense has been eliminated; the materials of science are to be organized primarily in terms of their effective appeal to the pupil and not primarily in terms of the organization of separate sciences, and yet what may be called the major units of science are to be preserved. Physics, chemistry, botany and zoology, with their connotation of organization in terms of science, are words which do not appear. In-

stead we have physical environment, plants, animals and man with connotation of organization in terms of the pupil, as well as in terms of science, as is made clear in the appendices of the report.[2]

Through these rather specific divisions of the subject-matter, it is believed that real scientific unity may be preserved. Such unity the committee has attempted to define, and it is evidently of the opinion that the preservation of such unity is essential. Not essential because of science, but essential because of the child.

It matters little whether our subject be rightly named science or not, and nothing should be preserved simply because it preserves a name. But unity should be preserved because with its loss the best values of science to the child are lost. The preservation of such unity in no wise impedes granting in full measure the demand that our science courses be more practical, more "in terms of every-day experience." And teachers to-day are better equipped to teach a course which respects the natural divisions of science than they are to teach one which frankly abandons such divisions. The "failures" in science instruction have been due to faults in teaching and to faults in choice of subject-matter rather than to faults in principles of organization. So these "failures" are not to be diminished and they may be increased by abandonment of the principles of organization.

It is believed that one-year courses in general science, as now presented, are deficient in such organization of data as is held to be of first importance. It is believed that unity which rests on unity of experience (including "the pupil's interests") or on contiguity of material, is not real unity in the sense that is needed in the pedagogy of science. Such courses are an invasion of the high school by the nature-study of the grades. High-school pupils have reached an age at which organization of data appeals to them. We should not neglect the advantage which lies in this fact. We should not present interesting miscellanies when we can make equally strong appeal through an organization which does more for permanent grasp, for appreciation, and for application. Hence we should preserve what seems best in the present organization of the science courses, and at the same time seek to satisfy reasonable demands for a closer linking of science with the child's life.

Although by accepting a two-year plan instead of a one-year plan we thereby greatly increase the simplicity of the situation, and substitute a basis of harmony for a basis of deadlock, we by no means solve all the problems arising. There is still room for opinion as to what the "internal arrangement" should be.

This plan may well begin with the eighth grade, or even with the seventh, as the "six-six" reorganization scheme comes into operation. (In any case, *it will be the link between nature-study of the lower grades and the "special science" electives of the upper high school.*) Just now, however, we are more concerned with its application to high schools as they are at present organized, and what follows is said with reference to the four-year high school of to-day.

With the general recommendation as to content cited from the report of the N. E. A. Committee it would be difficult reasonably to disagree. But the problem of just how to handle such content yet remains. The phrase of the committee, "physical environment, plants, animals and man," suggests an organization which merits serious consideration. This organization may be outlined as follows:

FIRST HALF-YEAR.—*Physical environment* basic. The physical controls of life.

[2] *School Science and Mathematics*, January, 1915.

Physicists and physiographers have a joint interest in the content of this unit, which has been described as "general science with the biological part omitted."

Now it may be contended that the objections raised to unlimited general science are also valid in the case of general science restricted basically to inorganic phenomena. This raises a nice point which merits consideration. This point is that the pedagogy of organic phenomena has a rather fundamental difference from the pedagogy of inorganic phenomena. In the unity of the life processes we have a unity which serves admirably our pedagogical needs in high schools, whereas in inorganic phenomena we find no unity equally serviceable in this connection. The point tempts us to diverge, but we must pass it with the comment that in it lies a good part of our defense of a kind of inorganic general science, while opposing general science not so limited. In this point, too, lies an explanation of the fact that the clamor for general science has arisen from teachers of inorganic science rather than from the teachers of biology. Teachers of physics, for example, have assumed that the strong objections they make to the more conservative teaching of physics are equally strong objections in other divisions of the teaching of science. This we have good reason to dispute.

To return to this first half-year unit. It constitutes a sort of "setting of the stage" for the basic studies of life which are to follow. The relations of physical phenomena to life are used as *illustrative*, or as *vitalizing material*, but this does not lead into the study of vital phenomena as basic.

Success in this and in the following units depends very much upon good judgment as to restraint of treatment, and such judgment depends upon appreciation of the use of a topic as *basic* as compared with its use as *illustrative*. The illustrative material may reasonably occupy the major share of attention as measured by time, but the basic material always has primacy when it comes to emphasis and reiteration.

Thus, for example, attention is called in this unit to the facts that light and water and oxygen and the soil have fundamental relationships to plant and animal life, but these relationships are not analyzed in any detail, such as is involved in the study of microscopic structures. Such analysis is reserved for later units.

Water and soil, air, light and heat and the great laws and phenomena which are related to them, form the basic topics. The earth in its relation to other heavenly bodies should also be considered.

As *illustrative*, there is abundant citation of the relations of the basic materials to human welfare and convenience. This means the inclusion of much now put into general science courses under the head of "explanations of familiar things."

Second Half-year.—*Plants.* A study of plant life in general and of the uses of plants to man, with abundant illustrative use of economic plants, and of practises in plant culture. Three distinct advantages appear in thus directly following the physical environment unit by the plant unit.

1. *The genetic advantage.* In the first unit we consider matter and forces which are prehistoric to plants. To these phenomena life had to adjust itself; within them life found its limits as well as the essentials of its being. From the genetic standpoint, then, our first unit obviously *should be* first. Likewise from this standpoint the plant unit obviously comes second, for plants are prehistoric to animals, and are themselves one of the controlling conditions of animal life.

2. *The seasonal advantage.* In all cases

of regular or yearly promotions this arrangement brings the plant studies into the half-year which begins in the winter and ends when school is out. If plant studies are to be limited to a half-year, as obviously they must be in a *general* course, the reasons for placing them in the spring term far outweigh the reasons for placing them in the fall. And similarly, the advantages of having animal studies in the fall rather than in the spring are quite obvious to all students of zoology. (Availability of material is a principal point, but not the only point, in determining the arrangement indicated.)

3. *The pedagogical advantages.* Plants are far more directly and obviously controlled by the physical factors of environment than are animals. Study of air and light, of water and soil, and of changes in the earth's surfaces lead directly to the study of plants, which are themselves such large factors in determining changes in the earth's surface. The study of topography can not be disassociated from the study of the plant-covering of the earth.

Plants, better than animals, lend themselves to the first teachings of life processes, and strongly illuminate the study of animals which follows.

In case of mid-year promotions, a complication arises. There is no question but that the physical environment unit should come first, in whichever term it falls. But, if the second half-year of the pupil be a fall term, the seasonal advantage should probably take precedence. Thus, in such cases, the animal and plant units change places in the individual program, so that the plant unit *always* comes in the spring and the animal unit *always* in the fall.

THIRD HALF-YEAR.—*Animals.* Much that has been said under Second Half-year applies here. The number of types studied will be much fewer than in year courses in zoology, and the course will have a distinctly "practical" aspect. Yet it will be soundly organized as zoology, and will not be merely superficial study of various zoological topics out of their proper setting. It will lead up to the study of man from the biological aspect.

FOURTH HALF-YEAR.—*Man.* A study especially of hygiene and sanitation. A course which deals with essentially modern data, thus preserving the genetic sequence. Applications of science to human welfare and convenience are now eligible for consideration as basic as well as illustrative. The pupil is now in a position to understand the precepts of modern hygiene and sanitation in their individual and social aspects as essential adjustments to great facts of nature of which he has real grasp. This is quite another and a better thing than the teaching of this subject through mere insistence on certain facts and rules whose relationships are perceived but vaguely, if at all. Yet such teaching is requisite if this unit comes without such introductory work as has been indicated.

Finally, to be valid, any plan for the reorganization of the science courses must rest on more than pedagogical theory and the interpretations of a random referendum. It must take into consideration what may be called "factors of limitation," cold rather than warm facts which confront us when it comes to putting any educational scheme into general operation. And the value of our plan will not rest upon its excellence with respect to one or with respect to several of these facts. It will rest upon the extent to which it *takes them all into consideration and meets their aggregate demands.* Leading factors in the problem may be tabulated as follows:

1. *The Psychological Factor.*—The pupil

wants organization and is ready for inductions if he has sufficient basic data.[3]

2. *The Social Factor.*—Democratic society requires a common stock of knowledge[4] and calls urgently for scientific methods in thought as well as in action.

3. *The Administrative Factors.*—

(*a*) Quality of the teachers.
(*b*) Schedule of the teachers.
(*c*) Size of classes.
(*d*) Materials available.
(*e*) Time available with respect to claims of other studies.

If the plan which has been presented is acceptable, as the present status of opinion regarding it strongly indicates, it is acceptable because it is based on careful consideration of these "cold" facts which limit the application of our theories, facts of practise and of opinion which have been collected with care and considered with patience and without previous bias.

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THE FUNCTION OF THE STATE UNIVERSITY IN THE FIELD OF PUBLIC HEALTH EDUCATION

THE state university of every state has a function to perform in the field of public health education. The knowledge comprehended by this field is of fundamental interest to every person. It is of undoubted practical value and inspires the visions we have of a better and happier people. Even the enemies of modern public health movements eat of their fruits while they deny that they are wholesome. Who can doubt that the student who prepared himself at the university to teach mathematics and while still in his active years contracted some preventable disease might have saved his health if he had been given the opportunity in his university days to get some knowledge of the social aspects of the malady? Indeed, it is very probable that the struggles which have been made in all parts of this country to secure protection of the health of the people would have moved on with greater rapidity if appropriate instruction had been offered years ago in educational institutions. So vital indeed is this knowledge that various philanthropic organizations and agencies have voluntarily contributed their help and influence to those who are specially engaged in disseminating it among the people.

And yet the very institutions which the people of many states build and support for the educational advantages of all, have, in most instances, not even attempted to teach students the first thing about public health, much less to carry information to the various communities of the state. It is quite as important to offer a course on the social aspects of hygiene as it is to give the student the opportunity of taking a course in the history of art. It is not necessary, however, to minimize the latter in order to accentuate the former, because both are desirable.

The state university is peculiarly responsible for the development of courses in the field of public health education. Non-state schools, of course, may feel that a similar

[3] There are those who argue that to a large class of high-school students this does not apply. They argue that the organization of science is wasted on this class; that those who compose it had better have a mere smattering of "useful facts," because this is all they will ever use. The existence of such a class is not denied, but it is denied that it is so large as to justify the teaching of smatterings of science as a general plan. To say that the merit of an educational policy "depends on the individual pupil" is to utter a truism. But it is also an evasion of the question. Educational policies we are compelled to have. The problem of the individual pupil we must leave very largely to the individual teacher.

[4] See Bagley, "Principles Justifying Common Elements in the School Program," *School and Home Education*, December, 1914.

duty rests upon them. Harvard has been doing splendid work. Indeed that institution has set an example for all others. But the state university belongs to all the people of the state. It is their own institution. They pay the current bills; they supply the money for new buildings and additional equipment. And further, the state university is the head of the public school system of the respective state.

The conservation of health, the prevention of disease, and the reduction of the death rate can only be accomplished by educational methods and the application of knowledge. These are ends to be striven for in a large and vigorous way. They are not to be realized through half-hearted efforts. It is safe to say that our failure greatly to diminish all the preventable diseases and to develop a vast enthusiasm for public health is due to our small efforts. The Panama Canal could only be constructed when the efforts were as big as the task.

It is the contention of this article that the state universities should immediately and as nearly simultaneously as possible embark on schemes of public health education. There are two things which every state university should do. First, it should offer courses on the social aspects of hygiene to the students of any college or school or department. Practically every factor in the entire problem of public health education is social in its nature. It is intimately related to the lives of the people. The courses should be elementary for those students who have not had precedent work such as chemistry and biology. Students who have had such previous work can take a course that is somewhat more technical. And finally, those universities that have a medical school should give much broader courses. The students who expect to engage in public health service should be given every opportunity to prepare themselves for their work. Post-graduate courses should be offered to them as well as to men who are now at work in the field.

I dare say that every state university can do this work partially or completely. There are, perhaps, at the present time men in the science and sociological departments of every state university who could do much of this work, and those institutions that do not have such men would very probably have no difficulty in securing them.

The second phase of the function of the state university in the field of public health education lies in what is now popularly called extension work of the university. And there is perhaps no educational problem that so readily lends itself to the legitimate activities of the extension department of the university as this one.

There has never been an educational effort commensurate with the task of disseminating knowledge concerning the prevention of disease and the protection of the health of all the people. As a consequence of our tardy awakening to the inadequacy of the machinery for doing the fundamental educational work we have made only slight impression upon the enemies of our health and, therefore, of our happiness.

Now he who believes that we are potentially capable of shaping our physical and mental lives just about as we would have them, must see at once that we are practically failing to do so. In the decade 1900–1910 there died in this country 2,500,000 babies under one year of age. This tremendous loss of infant life is surely a terrible indictment of our wisdom in the construction of the state. There is not a person whose opinion is entitled to the slightest consideration who does not believe that many of these deaths were preventable. If it is true that even a few of them were unnecessary, we all stand accused and

guilty of having failed to do a most important duty, that of saving our own children from sickness and death.

It is a singular fact that while a few men and women have been spreading information on this vital matter, most of the state universities have either not been interested in it or they have maintained an attitude of dignified silence toward it. But there may be an extenuating condition, and it should be mentioned. The national government has a public health service. And it is a pleasure to say that it is efficient and creditable. The states have their health board or department which is more or less effective in the enforcement of health laws. The cities and most towns and many counties have their health department which in a few instances is actively engaged in enforcing sanitary rules, laws and ordinances, but in many other cases it is only filling its niche in the partisan political structure. All of these legal organizations have the primary duty of enforcing the laws. And this is an immeasurably important duty. Happy is the community in which the health laws are rigidly enforced.

But health departments are not mainly educational in their activities, and health officials are not educators.

There are many exceptions to this statement, and I hasten to say to the credit of these men that they have done splendid educational work. But I insist that the present facilities are too few and too feeble to do any considerable part of the work in the field of public health education. For proof of this statement I may cite the fact that many men now engaged as public health officers have no special training for their work, and the idea still prevails in more than one community that the old and more or less shelved physician is just the man for the office of health officer. And there are many county-seat towns that pay their health officer the munificent sum of twenty-five or fifty dollars a year. And further, there are some states and large cities that do not require the health officer to devote his full time to his duties, but indeed permit him to engage in private practise. And as for county health officers, they are often lacking. These facts but reflect the failure to spread knowledge among the people. Appreciation of the possibilities of the service of preventive medicine and sanitation waits for knowledge. And as long as the people have no intelligent notion of the ways by which we may hope to save ourselves from disease and untimely death, that long will they be apathetic about the kind of public health service they may get.

The only remedy for this condition lies in a wide-spread campaign of education. And no institution can render this service quite as efficiently and acceptably as the state university, or some other equally well-equipped educational institution. The people of the state have confidence in the wisdom and power of their own university. If they did not believe in it they would not send their sons and daughters to it, nor would they continue to support it. And they will hear its message concerning the vital questions of public health.

A new inspiration must be found that will spread like a contagion among the people. Most people are interested in disease. They must acquire an enthusiasm for health of mind and body. And it is not enough that a few people in a community have an exalted notion of man's power to conquer his enemies in the form of insidious diseases. The health and morals of a community are what all the members make them: they are not standardized by the scrupulously moral nor by the few who have some knowledge of sanitary principles. It is clear then that the application of

health-saving methods must be the concern of all persons in a community. And the awakening of all to the feasibility of freeing ourselves from the things that hurt us and prepare the soil in early life for the fatal diseases of middle life will surely follow the serious efforts made by the state universities to do this educational work.

If the state universities should undertake this educational work almost simultaneously and immediately, the attention of the entire country would be secured. So much serious attention on the part of persons engaged in educational work has never been devoted to the public health education. The vision of all the state universities laying hold of the task is indeed inspiring. It is difficult to restrain one's inclination to forget the obstacles that are in the way and to visualize at once the results of years of labor. A few universities, Missouri, Wisconsin, Michigan, Iowa, Pennsylvania, Minnesota and perhaps others are now engaged in both intra- and extra-mural work in the field of public health education. Why may we not expect every state university at once to take up as much of the burden as it can carry, and enlarge its activities as conditions will permit?

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EDUCATIONAL EVENTS

LEGISLATION AT CORNELL UNIVERSITY IN REGARD TO WOMEN

AT the regular meeting of the board of trustees of Cornell University, on January 16, the board, as we learn from the *Alumni News*, considered recommendations contained in a report which it had received from a committee headed by Mrs. Moody. These recommendations were made in response to a petition received by the board from the Cornell Women's Club of New York City. That petition contained two requests, first, that opportunities for vocational training at Cornell University be enlarged, and, second, that a distinguished woman scholar be placed on the Faculty of Arts and Sciences.

The report of the committee had been presented by Mrs. Moody to the board at the regular meeting of November 7, 1914. Three recommendations were made by the committee, namely, that vocational courses for women be organized, that as soon as practicable a distinguished woman scholar be appointed to the faculty of arts and sciences, and that, as vacancies occur in that faculty, women be considered as well as men. At the November meeting the report was received and ordered spread upon the minutes, and trustee Moody gave notice that she would move the adoption of the recommendations contained therein at the next meeting of the board. At the January meeting the first recommendation, the one relating to vocational courses, was tabled pending a consultation with the faculty of arts and sciences, and the third recommendation, that women as well as men be considered in making appointments, was adopted.

The faculty of arts and sciences had on January 8 passed the following resolutions:

1. The faculty would regard as unfortunate the appointment of any woman or her exclusion from consideration as a candidate for appointment on the ground of sex.

2. The faculty recognizes the difficulties and dangers which have been pointed out in discussions of the subject, such as the temptation to appoint women from motives of economy. It is in full accord with that portion of the report of the committee of the trustees read to the faculty by the president which insists upon preeminence in productive scholarship and creative ability as the necessary qualification of any woman who may be considered.

The text of the report presented by the committee of which Mrs. Moody is chairman is as follows:

The committee appointed to consider the petition presented by the Cornell Women's Club of New York City has held several meetings since the date of its appointment.

It has considered the New York petition under its two heads: (1) a request for enlarging opportunities for vocational training at Cornell University; and (2) a request that a distinguished

woman scholar be placed upon the faculty of arts and sciences.

The committee quickly arrived at a decision to recommend to the board of trustees the organization of further vocational courses at Cornell which should be especially adapted to the use of women, although not arranged exclusively for them. It is the sense of this committee that many courses already existing in the university could be grouped into two vocational schedules, and that as rapidly as is feasible the university should add other courses of vocational instruction.

Much time was devoted to the discussion of the second head of the petition; namely, the election of a woman professor to the arts faculty. A thorough canvass was made of the faculties of coeducational colleges and universities of the first rank in America, and it was found that there was much precedent among them for the election of an able woman professor to a chair in the college of arts and sciences at Cornell. It was the conclusion of this committee that when vacancies occur in the faculty of arts and sciences at Cornell, women should be considered for the appointment as well as men.

Your committee desires, therefore, to urge as a result of their deliberation that a woman professor of marked scholarship and of creative ability in her own field be appointed to a chair in the faculty of arts and sciences at Cornell when a vacancy occurs or other opportunity offers; but it was the full wish of the committee, as it was of the women who framed the petition, that no woman should be chosen to a professorship for any reason other than her own preeminent fitness to fill the position.

Your committee, therefore, presents as a result of its conference the recommendation and request that (*a*) vocational courses adapted to the needs of women be organized and, when feasible, increase in number and variety; (*b*) that as soon as practicable a woman distinguished as heretofore described be appointed to the faculty of arts and sciences; and (*c*) that with a view to that end as vacancies occur in the faculty of arts and sciences women be considered as well as men.

MEDICAL EDUCATION IN CHINA

THE report of the China Medical Commission of the Rockefeller Foundation, of which President Harry Pratt Judson of the University of Chicago is the chairman, has just been made public. The volume of one hundred and twenty pages, with thirteen plates and a map of China, was printed by The University of Chicago Press.

President Judson was given leave of absence from the university for seven months for the prosecution of the inquiry, the results of which are incorporated in this report on "Medicine in China." Associated with him on the commission were Roger Sherman Greene, consul-general of the United States at Hankow, and Dr. Francis Weld Peabody, of Harvard University, and the Brigham Hospital, Boston. The secretary of the commission was George Baldwin McKibbin, a graduate of the University of Chicago Law School.

Six sections of the report include discussion of "Health Conditions in China," "Chinese Native Medicine and Surgery," "Western Medicine in China," "Standards of Medical Education under Missionary Auspices, Teaching in Chinese or in English," "Dissection and Autopsies," and "The Attitude of the Chinese toward Modern Medicine." The final section gives the recommendations of the commission, chief of which are that the Rockefeller Foundation should undertake medical work in China, for which there is the most urgent need and great opportunity; that the foundation should cooperate with missionary institutions already existing; and that the medical instruction in which the foundation is concerned should be of the highest practicable standard. Various specific recommendations are also made, such as provision for medical schools, hospitals, fellowships, scholarships, training of nurses, and expert lecturers from other countries.

In the course of their investigations the members of the commission visited seventeen medical schools and ninety-seven hospitals in China and Manila, and visits were also made to various universities and secondary schools, both missionary and governmental. It is believed by the commission that the schools and hospitals seen comprise the most important and on the whole those which are typical.

OXFORD IN WAR TIME

AT the annual meeting of the Association of University Women Teachers held in London

on January 23, Miss Jex-Blake, principal of Lady Margaret Hall, Oxford, spoke on "Oxford in War-time." According to a report in the London *Times* she said that no town in England had felt the war more immediately. Nothing went on as usual, with the one possible exception of the women's colleges, which outwardly were not affected, the number in residence being as high as usual. But, seen from within, they were sobered and saddened, as the students came from the class popularly supposed to be the idle rich, whose menfolk had joined the army, one way or another, to a man. Hockey matches, theater-going and tea parties had almost vanished from college life. Hard work, mitigated by Red Cross lectures and knitting, was taking their place.

In the men's colleges less than one third of the undergraduates were in residence at the beginning of last term, only 1,200 all told, and the numbers had grown gradually less week by week. Almost without exception all the able-bodied undergraduates, headed by the Prince of Wales, were already at the front or preparing to go there. All the members of last year's eight, with the exception of the cox; 13 out of the Rugby fifteen; nine out of the cricket eleven; eight out of the association eleven; the whole of the lawn tennis six; and some 60 more men who have represented the university in some other form of sport had gone to the front. The aristocracy of brains was represented by one professor, some 40 fellows, more than 200 holders of scholarships and 78 exhibitioners. Oriel had sent 87.8 per cent. of its men to the forces; Magdalen was next with 85.3 and Trinity third with 82.1.

One had to go back to the days of the civil war to find anything comparable. In 1642 the college buildings were described as half arsenals and half hotels, and though bursars were not now distracted by demands from the war office for the college plate, at least one last term was ordered to prepare accommodation for 250 recruits at 24 hours' notice. Hardly had the last candidate for examination been hustled out of the schools than some 500 beds for wounded were installed there. One undergraduate remarked that the building had always been a place of suffering. The Town Hall and the Masonic Hall were also fitted up as hospitals, and two wives of dons, Mrs. Grundy and Mrs. Jenkinson, took charge of the cooking arrangements. Hundreds of Belgian refugees had also been welcomed.

THE TEACHING OF GEOGRAPHY

THE Association of American Geographers, at its meeting in Chicago on December 29 and 30 last, appointed a committee to investigate the conditions of geographical education in our country; also to study the question how our educational standards may be advanced so as to meet the geographic needs of our people. A committee consisting of Richard E. Dodge, professor of geography in Teachers College, Columbia University; Ray H. Whitbeck, associate professor of geography and physiography in the University of Wisconsin, and Cyrus C. Adams, of the American Geographical Society, chairman, was appointed to conduct the investigation.

The committee's report will be presented to the association at the next annual meeting and one of the sessions will be entirely devoted to it. It is desired that the report shall embrace all phases of the subject—and among them the evolution of geographic education in Europe brought about by the impelling need for sound geography as the basis of countless activities and as essential in text-books, literature and maps.

This work is based upon the conviction of our geographers that, on the whole, our vast school population is not as yet being prepared to possess and to enjoy those conveniences of knowledge and those elements of culture which geography, rationally and seriously studied, can give. The fact that as a people we have neglected the geographic phase of education explains the great geographic deficiencies of many of our periodicals, encyclopedias, atlases and other publications. Some day our young men and women will know, when they leave school, that a good map is a means of culture and a poor map is worthless; a boy, born with the gift of generalizing first-rate atlas maps from govern-

ment contoured sheets, will find some place at home where his talent may be trained and developed; and all our people of fair intelligence and education will be able to discriminate between good and poor sources of geographic reference.

Our geographers themselves must be the primary agents in improving and perfecting present conditions. They have every encouragement to take up the work. Their efforts will evolve helpfulness in others; and they see before them the transformation in geographic education that has come to pass within the past thirty years in the United Kingdom, whose geographers and geographic societies now have, as the fruit of their labors, geography in the universities, a vast improvement in text-books and in methodology, map-making that nearly rivals the best products of Europe, and an output of geographic literature, embracing most of the content of geography that would honor any nation.

EDUCATIONAL NOTES AND NEWS

The appeals of the other mother teachers of New York city pending before State Commissioner of Education, Dr. John H. Finley, since his decision in the case of Mrs. Peixotto were disposed of on February 3. Commissioner Finley notes that the case of Mrs. Lily R. Weeks, a teacher in Public School 84, Queens, is similar to the Peixotto case, and he directs her reinstatement, saying: "The unescapable conclusion is that the neglect of duty against Mrs. Weeks consisted of her absence from the school for the purpose of bearing a child." In the case of Mrs. Jeannette V. Ortman, who did not state the fact of her marriage when she was appointed a teacher in 1912 and was subsequently dismissed for gross misconduct, Commissioner Finley dismisses the appeal. He says: "In a calling in which honesty is the basis requisite it can not be deemed an abuse of discretion on the part of the board of education to consider the concealment of a fact material to the validity of the appointment as 'gross misconduct.'" In the cases of Mrs. Sara Breslow and Mrs. Lora M. Wagner, Commissioner Finley denies the appeals, because the questions at issue were brought before him without being passed upon by the New York City Board of Education first, their suspensions having been accomplished through the board of superintendents. Commissioner Finley points out that when these two cases are brought to the attention of the board of education the board undoubtedly will reinstate these two teacher-mothers on the principles laid down in the Peixotto case.

The School of Education of the University of Pennsylvania announces a course of free lectures to the teachers of the state. The school has recently given courses leading to university credit in Harrisburg, Williamsport, Wilkes-Barre and West Chester. Training and conferences in school administration have also been offered free at Altoona to the superintendents of the vicinity, and this service is being extended to a number of centers throughout the state. The course will continue from the third week in February until June, including schoolmen's week in April, and among those who will lecture will be the chancellor of New York University, the United States commissioner of education, the president of Columbia University, the state superintendents of education of Pennsylvania, New Jersey and Massachusetts. During schoolmen's week lectures will be given by the principals of state normal schools at West Chester, Indiana, East Stroudsburg, Lock Haven and Kutztown, Pennsylvania, and Trenton, N. J.

The Berlin correspondent of the *Journal* of the American Medical Association writes that in spite of the fact that 1,501 men and 27 women among the Berlin students are in the service of the army, either in the field or in subsidiary positions, such as nursing and the like, the number of students in the winter semester at the university is not particularly smaller than usual. Eight thousand and thirty-five students have matriculated, 7,037 men and 898 women. The number of the latter has relatively largely increased. In the previous winter semester there were only 859 women while the men students numbered 8,200. Of medical students there are 1,798 men and 199 women.

THE foreign affairs committee of the House of Representatives has reported favorably the resolution requesting the president of the United States to invite foreign governments to participate in the International Congress on Education to be held at Oakland, Calif., in August of this year. This resolution was prepared by the National Educational Association, but its passage by congress is necessary before invitations can be sent out because of the act of congress passed after the St. Louis Exposition providing that the executive shall not extend or accept any invitation to participate in any international congress without specific authority in law.

THE local school board of the twenty-fifth district, New York City, held a mass meeting on February 4 at Public School 44, in behalf of the school children's half-fare bill now before the legislature. According to the program Mr. Thomas W. Churchill, president of the board of education, presided at the meeting. Senator Hamilton and Assemblyman Fertig, who introduced the bill in the senate and assembly, spoke. The bill would enable children more readily to attend trade schools at a distance from their homes.

ANNOUNCEMENT is just made at the University of Chicago that the laying of the cornerstone of Ida Noyes Hall, the new woman's building, will take place on convocation day, March 16, instead of in February, as originally planned. The building, which will cost over $450,000, will extend along the Midway Plaisance 240 feet, the gymnasium reaching back from the main structure 160 feet and the natatorium forming a wing of the gymnasium to the west.

PRESIDENT EDMUND J. JAMES is urging the establishment of a veterinary college as an integral part of the University of Illinois. He believes that much of the loss due to the present outbreak of foot and mouth disease could have been avoided if the country had an organization of properly trained veterinarians. Some eight years ago, after an extended trip investigating twenty-five leading veterinarian colleges of western Europe, President James presented plans for an adequate veterinary college. The project was defeated and thus neither Illinois nor any other state in the United States has to-day a single first class, modern, adequately equipped and adequately manned veterinary college. "Such a college," says President James, "located partly in Urbana in proximity to other scientific laboratories of the university and partly in the city of Chicago, in close proximity to the stockyards, would be of untold service, not only to the people of this commonwealth, but to the whole nation."

A BEQUEST of $75,000 has been made to the University of Colorado by the late Mrs. Charles Inglis Thomson of Kansas City for the establishment in the School of Law of the "Charles Inglis Thomson Professorship of Law." This professorship will be the first chair in the University of Colorado endowed by private funds.

A GIFT of ten thousand dollars to Reed College by Mr. William P. Olds, of Portland, Oregon, one of the trustees, provides for an organ which is now being constructed for the college chapel.

ACCORDING to James R. Severance, treasurer of Oberlin College, during the fiscal year just closed a net income of 5 per cent. was earned by the invested sums of the college. The income from term bills in all departments was $212,975; the income from endowment funds was $117,381; the gifts for current expenses amounted to $39,208; making the total income, exclusive of gifts for new buildings and endowment $369,564.

UPON request of members of the general assembly of Colorado, the regents of the University of Colorado have decided to continue the Legislative Reference Bureau which proved to be a great aid to legislators two years ago. Dr. Arnold J. Lien, instructor in economics, has been appointed head of the bureau. It will be his duty, upon request of legislators or legislative committees, to collect data and to compare proposed legislation with similar laws.

The board of regents of the University of Colorado has confirmed the following appointments: James H. Brewster, acting professor of law; Frank L. Clapp, superintendent of University extension for western Colorado; James N. Ashmore, director of physical training and athletics; Helen M. Bunting, director of physical education for women; Erwin L. Regennitter, lecturer on Colorado code of civil procedure; Dorothy M. Burton, instructor in English literature; Erskine R. Myer, instructor in English; Eugene M. Kayden, instructor in economics; Edna M. Reynolds, instructor in psychology; Craig M. Bouton, instructor in chemistry; Daniel T. McCarthy, assistant in extension division; Edward F. Grundhoeffer, instructor in mechanical engineering; James J. Doland, instructor in engineering mathematics; Charles N. Meader, instructor in pharmacology and physiology; Thomas F. Walker, instructor in pathology; Frank L. Moorhead, instructor in law; Armin N. Rosenblum, instructor in pharmacy.

An innovation in the conduct of the chapel services at Harvard is announced by the board of preachers for the third week in February, during which the daily morning services, twenty minutes in length, will be in charge of members of the university faculty who are not preachers, a different professor appearing each morning. The teachers who have consented to speak in chapel, and their dates are:

February 15—Professor Edward H. Bradford, M.D., dean of the Medical School.

February 16—Professor Theodore W. Richards, Irving professor of chemistry.

February 17—Professor George Grafton Wilson, professor of international law.

February 18—Professor Clifford H. Moore, professor of Latin.

February 19—Professor Edwin Francis Gay, dean of the graduate school of business administration.

February 20—Professor Richard C. Cabot, M.D., of the Medical School.

"The Making of Germany" is the general subject of a series of lectures to be given by Ferdinand Schevill, professor of modern history in the University of Chicago, beginning February 16, at the Abraham Lincoln Center, Chicago, under the auspices of the University Lecture Association. The subjects of the two lectures in February are "The End of the Elder Germany" and "Frederick the Great, Herald of the New Germany." On March 2 Professor Schevill will discuss "The Revival of the National Spirit," and on March 9 "The Revival of Learning, Science, and Economic Enterprise." "Bismarck and the Victories of War" and "William II and the Victories of Peace" are the subjects of the concluding lectures. The object of the course is to show how modern Germany has arisen through the evolution of the German people itself.

The University of Cincinnati announces a series of twenty-four lectures in French, on the subject of the Celtic influence in the literary history of France, England, Spain and Germany, to be given by M. Anatole Le Braz, professor of French and Celtic literature in the University of Rennes, Brittany. The lectures will be delivered under the auspices of the Ropes Foundation for the Study of Comparative Literature, on Thursdays at four in the afternoon, and on Saturdays at half past ten in the morning, during the months of February, March, and April, at the University of Cincinnati. The date of the opening lecture will be Saturday, February 13. The course will trace the growth of Celtic influence from its rise in Wales, Cornwall and Brittany, noting its appearance in the Breton romances, the "Lais" of Marie de France, and the "Romance of Tristan and Yseult." The course will then follow the Celtic spirit emanating from these romances even after their popularity had waned, and will show this spirit in the "Amadis," which gave birth in France to "L'Astrée," in Spain to "Don Quixote," in Italy to certain episodes of the "Divina Commedia," and later to certain passages in Ariosto and Tasso. It will, also, exhibit the continuance of the Celtic influence in the novels of the Bibliothèque bleue, finding it also in England in Shakespeare and in France in the plays of Racine and of Marivaux. The course will next discuss the revival

of the Celtic spirit in the eighteenth century in the Ossianic poems of Macpherson, and its persistence in France, England, Germany and Italy. It will finally examine the Celtic influence in the work of Mme. De Staël, and, especially, in that of Chateaubriand, noting its part, also, in the writings of Byron, Lamartine and the Romanticists in general. As a supplement to the lectures given under the auspices of the Ropes Foundation, the Alliance Française announces a course of twelve lectures, by M. Le Braz, on "L'Influence prépondérante de la femme dans l'histoire des lettres françaises," to be given in the Walnut Hills Public Library.

THE University of Wisconsin plans to hold a large exposition on March 19 and 20. The college of agriculture will fill 5,200 square feet in the annex to the gymnasium. In this exhibit will be the work of the home economics course and 18 other departments, livestock, machinery methods and laboratory practise will be explained and illustrated by charts and demonstrations. The college of engineering, which will also occupy space in the annex and also the main gymnasium, will have exhibits of machinery, construction and mining methods. In addition, there will be illustrations of many other phases of engineering work. The science departments are planning to show the latest discoveries and scientific methods. The department of physical education will show the wonderful progress that has been made in physical education at Wisconsin in the last few years. The activities which engage the students' time outside of classes will be fully explained in separate booths. The exposition is entirely under the charge of students. The various committees, numbering 425, are working under the direction of an executive board of ten students. Besides giving the students and faculty a chance to get an idea of what is going on in other departments, the object of the exposition is to draw citizens and high school pupils from all over the state to Madison on March 19 and 20 to learn what their university is doing.

THE nineteenth biennial report of the regents of the University of Colorado has been submitted to the governor and general assembly. The important recommendations are: an increase of the maintenance funds of the university, making possible the development of present plans and the care of urgent needs; the erection of a woman's and a man's building to serve as centers for the social life of the students as well as to provide gymnasium, dormitory and other facilities; medical buildings both in Boulder and Denver; additional wings for the library; added room for engineering and chemistry; the completion of the museum building; additional quarters for the college of liberal arts; the establishment of a department of architecture—there is no such school of standing nearer than the University of Illinois; and the expansion of the work of the university extension division and of the summer session—the latter has had an increase in enrollment in ten years from 60 to 566. The statistical data contained in the report show that since the establishment of the university in 1877, 22,545 students have been in attendance, and 2,426 degrees have been conferred. The university library contains 77,174 volumes, 14,018 volumes having been added during the biennium. In two years 40,000 specimens have been added to the museum collections. The average annual maintenance expenditure of the university during this biennial period has been $279,140. The estimated valuation of university property is $1,434,732.

DISCUSSION AND CORRESPONDENCE

SOCIOLOGICAL ASPECTS OF PUBLIC EDUCATION

PUBLIC education at present suggests the dissociated personality. So many different and even antagonistic tendencies are now present in our educational procedure that a semblance of unity is obtained only by a remarkable transformation of purposes and methods as the pupil changes from one study to another or advances from one period of his preparation to the next in order. Well-established tradition refuses to give way to the

enthusiastic "latest word," and under the hypnotic pressure of the need of doing something to somewhat satisfy the public, increasingly critical, a kind of working-truce appears which permits more dissonance of motives than the most famous multiple personality reported by Dr. Morton Prince. The social importance of the public-school system makes the situation a most unhappy one.

Surely there can no longer be any doubt about the skilful teacher getting results with any method or obtaining some success by the use of any one of many motives. This is not to say that all methods are equally efficient, but it is a statement of a situation that tempts the teacher, bewildered by the rapid change of educational dogma, to consider variations in results as due largely to differences in teaching skill born of diverse natural gifts. It is hardly strange that such a teacher accepts the current practise with the same resignation that one adopts the present fashion in dress. It would seem as if it were high time that educators agreed in removing more of the faulty, well-tested educational traditions from present practise than has yet been done. In education also it may be well to let the dead bury their dead. Of course this attitude brings one face to face at once with the problem of standards and the difficulty of testing success in the field of education.

Perhaps there would be greater hope of some agreement if educators would more generally admit that public education from inherent necessity must have social purposes rather than individual. Has not one of the causes of our present situation been our failure to keep ever in mind the social function of a public system of education? Our recognition of the social function of our schools must, of course, be judged by practises and not by mere words. Doubtless it will seem a sign of dogmatism to affirm that public education needs always to be conceived of as an attempt at a self-conscious evolution on the part of society. Since any thesis in the field of education is difficult to defend, there is the greatest need of stating one's position clearly. To define the legitimate object of public education as the attempt on the part of society for a self-conscious evolution means that men and women after centuries of social experience may be expected to feel the need of obtaining some few social results, and to know that the public schools are the instrument by means of which such results may be had. Every group has substantial agreement about some things being socially desirable. For example, in our day and time there is a rather general agreement that conservation of health makes for human happiness. Who thinks that the full meaning of this conception has been realized in our present public school? To take such an idea seriously just now would certainly at some places strain, as never before, traditions still influencing educational practise. However, this definition of education may not seem to take one very far. There is little agreement, it will be affirmed, as to the methods by which clearly desired social results are to be had.

One advantage perhaps will be admitted as a consequence of such a conception of education—we shall know where to look for light as to purposes and where to turn for help regarding the question of methods. The science of psychology ought certainly to furnish the latter. One of the confusing things about our present situation is the fact that so often the psychologist appears satisfied that he ought also to settle the problem of purposes. The natural field from which to expect aid in constructing a social program would seem to be the social sciences including ethics. It will prove of no small value if we can trust sociology with its allied sciences to throw light upon the problem of social aims in education. Is not sociology as well prepared to furnish assistance regarding purposes as is psychology and its ally, biology, in the field of methods? As a matter of fact, neither science is so happily harmonious as to encourage one to throw stones at the discord of the other.

We are told in a recent study[1] that at pres-

[1] "A Survey of Entrance Requirements and Recent Tendencies in the Courses of Study of the Normal Schools of the United States," *Pedagogical Seminary*, December, 1914.

ent eighteen normal schools in this country are teaching rural sociology, and that ten years ago there were probably none teaching that subject. It is very interesting to notice that the rural social problems as a definite study attract so few. If the newness of the study is used to explain this, it must be remembered that this is only another way of saying that the interest is new. A very valuable book[2] calls in question the dogmatic neglect on the part of educators of the field of primitive sociology, especially in regard to primitive education. It does seem a strange illustration of the failure to recognize the social character of the educational problem. This is all the more significant when one considers the great interest educators have taken in the study of the individual development of the child.

Is it not reasonable to assume that there is a forgetting of the social purpose of public education? Can the educator fail to have interest in the study of social control as it appears in most simple and clear form among primitive peoples when he has in mind the fact that education is an attempt at social control of a desirable form? Any powerful and respected organization, abounding in traditions, finds a certain kind of exploitation both easy and tempting. It comes to think of its problems in terms of its own prosperity. The history of churches and governments proves this. Can it be assumed that schools always have escaped this danger? It sometimes requires bitter criticism and violent discontent to remind social organizations that their success must always be based on their efficient functioning socially. Just now there is some slight reason to suppose that men are moving toward a more social and cooperative type of life. There is even greater reason to think that every effort ought to be made to bring about such a movement. If this need continues, there must develop a much more vigorous questioning of the public school unless there is a most decided admission in a most practical way that the schools have a very large function to perform in such a matter and a grave social responsibility.

Would it not play havoc with our present patchwork of practises and motives to test our educational policy by such questions as these: Does it stimulate desire for social progress? Does it develop the idea of social efficiency? Does it prepare for a larger social cooperation? Does it make possible a basis for public appreciation which will tend to make public criticism rational, and, by the operation of normal social laws, will enforce the conception of the public office as a public trust? Such a test of public education can hardly fail to suggest radical changes in both methods and subjects. Most of all it will show the need of less emphasis upon motives in education that are individual and not social. Any definition of education in terms of the individual begins with a fallacy: the child is a social product before he is born; he becomes an individual through social contact, and his education is a social process in that it requires other minds than his. Society can largely determine individual characteristics, and for its future well-being it needs more and more to demand that the public schools contribute significantly and not incidently to its pressing needs by a social use of the influence that the schools have over the individual in his sensitive period of immaturity.

ERNEST R. GROVES
NEW HAMPSHIRE STATE COLLEGE

[2] Todd, "The Primitive Family as an Educational Agency."

QUOTATIONS

RECRUITING THE UNSKILLED

ON Monday 487 girls, graduates of grammar schools, and thus duly qualified, appeared to enter the Manhattan Trade School. Of the number but ninety were accepted and enrolled. There was room for no more. The excluded 397 were sent away to become errand girls and the like—to swell the forces of the unskilled.

Much is said in school circles about keeping pupils longer in the schools. Yet at the only school in New York which gives girls earning capacity in a trade three fourths of the applicants are denied admission. It is not strange that the demand for progressiveness in school

management increases. Too much have the schools been under the control of pedagogues who think only of book-learning and intellectual instruction.

The boys and girls of New York are hungry for a chance to learn crafts. The conditions of modern industry and the spirit of the labor organizations make the old sort of apprenticeship difficult. The business of trade education must be taken up by the public. The skill of men and women is the foundation of national prosperity. Precious aptitudes are being stifled in this city. It is time to put machinery of the public school system at work to give the boys and girls of the present and future a chance. Not reform but revolution is needed in educational methods. Present-day pedagogy is dead. The "experts" may not yet know this, but others do.—New York *Globe*.

THE HARVARD DIVISION OF EDUCATION

The Division of Education at Harvard has grown greatly in recent years. For a long time Professor Hanus made an almost single-handed, up-hill fight to establish the teaching of teachers on a plane with the teaching of lawyers, doctors, clergymen and engineers. That there was any art in teaching was hardly admitted. In the most advanced of universities instructors were chosen for their eminence in some branch of learning and with almost no regard for their skill in teaching. Yet they were selected to teach. The success of such teachers as Professor Shaler ran directly counter to the prevalent basis for choosing instructors. Many a geologist could determine with better practical results than Professor Shaler the amount of gold hidden in a given mine. But who could so unfold before the imagination of a boy the drama of the geologic ages?

In reality teachers are more numerous than lawyers, doctors, clergymen or engineers. Their duties are surely not less important. And the need of understanding their job is not less urgent. It has far too long been taken for granted that the education of a child is proceeding when he is one of fifty in an unventilated room, with a single teacher trying vainly to teach all alike. It is now realized, but imperfectly, that the most forward of the fifty pupils are forced to waste their time in learning again and again what they already know, while the most backward of the fifty grasp practically nothing. One sometimes wonders whether the enforced herding of children daily in our great public schools, and the serious limitations on most of the teaching furnished, are in truth education or the reverse.

At no previous time in the history of Harvard has the importance of the division of education been so widely or so deeply appreciated as now. Three new professions are now included in the instruction given by Harvard. These three are business, at the new school of business administration, social service at the new school for social workers, and teaching at the division of education. Not the least of these is the profession of teaching.

Of the instructors in the division of education it should be said that they have shown the courage of pioneers, and the kind of strength which comes from struggles with great difficulties.

One factor in securing the latest addition to the staff, Professor Inglis, is noteworthy. That is the experiment, tried for the first time in his case, of having Radcliffe pay a much larger portion of his total salary than has been the case with any other Harvard instructor. The division of education resembles the school for social workers, which is supported largely by Simmons College, in that the profession to which the students aspire is peculiarly open to women. The exceptional contribution of Radcliffe toward Professor Inglis's salary is unlikely, at least for the present, to lead to similar contributions, since parallel cases must be rare. It is, however, significant as an evidence of the growing strength of Radcliffe.—*Harvard Alumni Bulletin*.

BOOKS AND LITERATURE

PSYCHOLOGY OF FEEBLE-MINDEDNESS

Seguin and his Physiological Method of Education. By Henry Holman. London, Isaac Pitman & Sons. 1914. Pp. 314.

Feeble-mindedness: its Causes and Consequences. By HENRY HERBERT GODDARD. New York, The Macmillan Company. 1914. Pp. 599.

The Backward Child: a Study of the Psychology and Treatment of Backwardness. By BARBARA SPOFFORD MORGAN. With an Introduction by ELIZABETH E. FARRELL. New York, G. P. Putnam's Sons. 1914. Pp. 263.

It was sixty-six years ago that Dr. Edward Seguin came to America and began the work of organizing schools for feeble-minded children. During the interval of two thirds of a century most of the states of America have established public institutions for this class of children, and private initiative has provided a number of schools quite as great. During the past twenty-five years a considerable number of cities have organized day schools for backward children. Several universities and many normal schools now offer special courses for teachers of the feeble-minded. Hence, there is to-day a widespread interest in the problems touching the psychology and the pedagogy of the feeble-minded, as these three books testify.

Seguin's "Idiocy and its Treatment by the Physiological Method" was originally published in 1866, and it has long served as the text-book of students of the psychology of the feeble-minded. It was reprinted by the Teachers College of Columbia University in 1908, and now Mr. Holman has issued the work in an attractive and inexpensive form. He has prefaced it with two timely essays, one, "The Place and Value of Seguin's Work in Education," and the other, "The Life and Work of Seguin." Mr. Holman has very properly called attention to the large appropriations made by Dr. Maria Montessori in the much-discussed "Montessori Method." Concerning Seguin Mr. Holman writes: "He was undoubtedly one of the world's greatest investigators and reformers. His work was directly concerned only with defective children, but, in finding the scientific basis of their education, he has revealed the only safe and sure foundations for all early education." No one at all familiar with the significance of Seguin's work will gainsay this estimate.

In addition to the now famous "Physiological Method" Mr. Holman has included several other educational essays by Seguin. One that is of special value is the report of the educational exhibits at the Vienna exposition of 1873, in which document Seguin gives his views on the kindergarten, moral training, and other matters concerning the training of normal children. Mr. Holman has not hesitated to make verbal changes in Seguin's texts whenever he thought this would make meanings clearer; and for this liberty, the reader is certain to thank the editor. Seguin came to America from France at the age of thirty-six, and he never acquired complete mastery of the English language.

Dr. Goddard is the recognized leader of the movement that has for its object the study of the minds of feeble-minded children. His laboratory at Vineland, New Jersey, has trained most of the scientific workers in this field. This book is in the nature of a report on the work that has been done in his Vineland laboratory and through the agency of his trained field workers. The 327 cases that he presents in this volume constitute a unitary group of selected children who have been inmates of the New Jersey School for Feeble-minded at Vineland.

The first chapter is given to a statement of the problem, in which he points out the large part played by crime, alcoholism, prostitution, and pauperism in the production of feeble-mindedness, after which he gives an account of the manner of obtaining his data and offers proof of its reliability. Among assignable causes, of the 327 cases that he studies, he notes heredity, neuropathic ancestry, accidents (including disease) before or at birth, the Mongolian taint, and meningitis. He discusses the application of Mendel's law to the cases studied; and while his discussion seems to say that feeble-mindedness is not a unit character, he leaves his readers with the impression that it may be.

He offers an admirable eugenic program in solving the problem of feeble-mindedness in

colonization and sterilization. The book is illustrated with a wealth of portraits, tables, and diagrams, and is the sort of work that should be welcomed by psychologists, teachers, and special students of the defective classes. Probably no work has before been published in any language that deals in such a practical and forceful way with the causes and consequences of feeble-mindedness.

Mrs. Morgan's book on the backward child is intended primarily for the teachers of such children. While it attempts to give the psychological basis of backwardness, the mental rôle of sensation, influence of perception, association clues, types of attention, and similar topics, frankly the author's psychology is not of the sort to make much scientific appeal. Her suggestions to teachers as to methods of handling such cases are excellent. As a practical manual on the care and training of backward children, Mrs. Morgan's book has distinct value.

Will S. Monroe
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JOURNALS OF SCHOOL ADMINISTRATION

In January there began publication two monthly journals concerned with school administration and supervision, which are important additions to the comparatively small number of publications in the United States devoted to the advancement of the science and practise of education.

Educational Administration and Supervision is edited by Messrs. Lotus D. Coffman, Charles Hughes Johnston, David Snedden and James H. Van Sickle, with the cooperation of Carter Alexander, Ben Blewett, J. F. Bobbitt, Albert S. Cook, E. P. Cubberley, C. O. Davis, Jesse B. Davis, Edward C. Elliot, J. M. Gwinn, Paul H. Hanus, William B. Ittner, W. A. Jessup, C. N. Kendall, William McAndrew, Patrick J. McCormick, Ernest C. Moore, H. C. Morrison, C. A. Prosser, F. E. Spaulding, G. D. Strayer, W. S. Sutton, Harlan Updegraff and H. B. Wilson. The editors thus describe the plans and scope of the journal:

> There appears to be a distinct field for an educational magazine devoted wholly to the thoroughgoing treatment of the multiplying numbers of problems distinctly administrative and supervisory in character. There is an equal need of such an instrument for distributing the evaluated results of technical studies in this general field.
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> *Educational Administration and Supervision* will be a *monthly journal* covering fields which can roughly be distinguished as follows: (1) State and county systems of education, including rural education and also educational legislation; (2) city school systems, including chiefly problems of city administration, supervision, management, reporting and educational statistics; (3) secondary education, including problems of organization, administration, inspection, curriculum making, and internal supervision, management and the pedagogy of the different subjects, and including also a consideration of those problems of higher education involving directly the interests of secondary education; and (4) elementary education, with the problems in this field analogous to those cited for secondary education.

The contents of the number are as follows: "Announcement by the Editors," "Fundamental Problems in Educational Administration," by Ellwood P. Cubberley. "The American School Superintendent," by Lotus D. Coffman. "The High-school Issue," by Charles Hughes Johnston. "College Surveillance and Student Responsibility," by Calvin O. Davis. Discussions. Book Reviews. Editorials.

The American School is edited by Messrs. Carroll G. Pearse, William B. Owen and James W. Searson, with a board of contributing editors consisting of L. R. Alderman, Robert J. Aley, Frederick E. Bolton, J. A. C. Chandler, George B. Cook, Russel J. Condon, James W. Crabtree, Andrew W. Edson, Edward T. Fairchild, Carleton B. Gibson, Edward Hyatt, David B. Johnson, James Y. Joyner, John A. H. Keith, John R. Kirk, G. W. A. Luckey, Neil C. MacDonald, Josephine C. Preston, Homer H. Seerly, Walter R. Siders, Payson Smith, William O. Thompson and Helen Thompson Woolley.

The editors write in their "greeting":

> In this column *The American School* makes its bow to the public and wishes to each reader a happy and prosperous New Year. It is hoped that the acquaintance thus begun may prove mutually advantageous, and may ripen into respect and lasting friendship.
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> The columns of this journal are primarily for

the discussion and exposition of the problems and principles which relate to the organization and administration of our educational instrumentalities. They will also present information believed to be of use and interest to school administrators. It is too much to hope that all the articles and all the editorial utterances will meet the views of all readers; whatever appears will be set forth with a sincere desire to promote correct organization and sound and efficient administration of American schools, particularly the best and most efficient organization and administration of American public schools.

The contents of the January number are as follows:

"The Educational Month" (editorial); "Cleveland and Its Schools," by C. G. Pearse; "A Constructive Policy for a State Teachers' Association," by W. B. Owen; "Corda Fratres Association of Cosmopolitan Clubs," by W. O. Thompson; "The Wisconsin Survey of the State Normal Schools," by a member of the Cooperating Committee; "The Training of Teachers" (Part I), by G. W. A. Luckey; "Ohio State Teachers' Association, Holiday Meeting," by R. W. Hinelick; "National Commercial Teachers' Federation, Meeting at Chicago," by A. H. Yoder; "A Cooperative Venture Towards Efficiency," by Fred. M. Hunter; New Books; Reports Received; Some Leading Articles; Meetings to be Held; News.

RECOMMENDATIONS OF THE RICHMOND SURVEY AS TO PREVOCATIONAL EDUCATION FOR BOYS

1. THE findings of the survey showed Richmond to be a city of widely diversified industries, employing people most of whom were born and reared in Richmond and Virginia. The children of Richmond who enter the industries, therefore, have an opportunity to choose a calling from among a large number of possible occupations of many different kinds.

2. In the schools of Richmond the children of 13 and 14 years of age are found scattered through the grades from the first elementary to the third year in the high school, more than half the children of these ages being in or below the sixth grade. These children will soon leave school to go to work, although the findings show that the low wages paid to those under 16 indicate that employers do not regard the services of immature workers as desirable.

3. The survey showed that there is a demand in Richmond for prevocational training for children over 13 years of age, and no demand at present for any type of all-day industrial or trade school, preparing relatively few for special occupations or trades. In view of the comparatively small cost of prevocational work and the limited resources which at the present time seem available, the prevocational school will reach and serve the needs of a much greater number of boys and girls than will the special industrial or trade school.

The committee, therefore, recommended that the Richmond schools develop, as rapidly as possible, schools or classes in prevocational training, admitting boys who have completed the work of the 5B grade and who look forward to leaving school at a relatively early age in order to go to work, and who need the help of the school in reaching a decision as to what line of work they may enter with the greatest prospect of success. In no sense is this school to be considered as a provision for defective, delinquent or incorrigible boys. The rank of the proposed school should correspond to the last two years of the regular elementary school course, and should require the same amount of time for the completion of its work.

4. If at any time in the future the public-school system of Richmond should be reorganized so as to provide for intermediate or junior high schools, covering the last two years of the elementary-school period and the first year of the present high-school period, the plan proposed herein for the prevocational school is adapted to fit in with such an organization admirably.

5. Prevocational training for Richmond should present a course of study that will appeal to boys who have lost interest in the work of the regular graded school, and who have either left school because of such dissatisfaction or who are contemplating early withdrawal.

6. Prevocational training should provide vocational direction and guidance for children

who are likely early to face the complexities of our modern industrial and commercial life. It must give them an experience and a knowledge which will serve as a basis upon which an intelligent choice of a life career may be made.

7. Results of experiments in prevocational training made in Richmond last year offered suggestions as to what may be accomplished in these directions. The results duplicate the experience of other cities in which similar work has been undertaken.

8. The course of study must be a varied one if it is to help boys to find themselves and enable them to make an intelligent choice of work in the future. What is needed is not a course in woodworking or a course in metal work, but rather an organized training in practical arts which will include a variety of experience in the industries fundamental to the life of the community. Woodworking, metal work, printing and bookbinding, and electrical construction are some of the industries in Richmond which give an opportunity for experience in certain fundamental processes which are most valuable to boys, without respect to the occupation in which they may later engage. A plan for such industrial work should consist of a series of jobs, projects or enterprises which in their accomplishment will give the boy an appreciative understanding of the more important industries.

One half of the time in school should be given to related work in language, mathematics, industrial geography, industrial history, and, in general, to preparation for active and intelligent understanding of civic and social responsibilities. If the interests and capacities of the boys are to be properly tested, the experience in the shops must be as real as possible. In this connection it is important that they have an opportunity to become acquainted to as great an extent as possible with the actual operations of the industry.

9. Instructors must be men who possess not only a general acquaintanceship with, and knowledge of, the industries represented in the courses of study, but they should give evidence of ability to make intelligent research into, and study of the progress in methods and processes of work in the industries.

10. The committee felt that while the desire to make these recommendations brief prevented any detailed discussion of a program for prevocational training for Richmond, the best way in which to set forth in concrete form the above statement of principles was through brief suggestions as to the course of study and the program of classes which might be put into effect with profit in Richmond. These suggestions are in line with the prevocational work which has just been established in the city.

Proposed Course of Study

A. ACADEMIC WORK—approximately half-time.

1. *English.*—Language work based on reading, much of the reading to bear upon the industries. Composition, dealing with the occupational work of the school, business correspondence, business forms; spelling and penmanship. Aim to cultivate a love for reading.

2. *Arithmetic.*—To be of a very practical nature, including fundamental processes, short methods used in business, business and trade arithmetic, with emphasis on immediate application to the industrial work of the school.

3. *Geography.*—Chiefly industrial, and closely related to

4. *History.*—Closely related to geography and dealing with the industrial and commercial development of the city, state and country.

5. *Civic and Social Duties.*—Relation of the individual to the community, state and country; relation of the worker to his work, to his employer, and to his fellow workmen; duties and responsibilities both civic and social, with special reference to sanitation, personal hygiene, etc.

B. INDUSTRIAL WORK—approximately half-time.

1. *Woodworking.*—To consist principally of carpentry, including such other forms of work as may be called for by the projects undertaken. Study of tools, machines and structures, such as garage, poultry houses; problems in framing, truss construction and repair work, with emphasis on the latter.

2. *Metal working.*—To consist of work in hot and cold bar metal and sheet metal; prac-

tical problems in repairs and construction which developed in the equipping of the school, supply work for some time to come. This will include such work as the making of brace and angle irons, bolts, machine and bolt guards, simple tools, pipe cutting and threading, metal parts of electrical and other apparatus.

In addition to this the students should take apart and assemble the old machines, endeavoring to find out how they work and why they work. Study carefully the principles of the automatic machines and the method of conveying power through machines to the point of doing the work, the intention of this work being to familiarize the students with the general principles of machine construction.

3. *Printing and Bookbinding.*—To consist of the simpler forms—mainly the printing of forms, cards, announcements, etc., required for the school; this work to be supplemented by special work in English, proof-reading, design and color harmony.

4. *Electrical Construction.*—To consist of elementary work in battery construction, magnetism, induction, small motor and dynamo construction, wiring, electrical measurements and testing. Experiments with batteries, induction coils, and the wiring of bell, telegraph, telephone, and other circuits will be worked out on specially constructed frames.

5. *Drawing.*—To be elementary in character, but practical and related directly to the projects undertaken by the pupils in the various shop courses.

SOCIETIES AND MEETINGS

THE CINCINNATI MEETING OF THE DEPARTMENT OF SUPERINTENDENCE

THE Department of Superintendence of the National Education Association and the organizations affiliated with it meet at Cincinnati from February 22 to 27. The program promises a meeting of unusual interest. The titles of the papers and discussions fill 18 pages, which represent the best work in education now being accomplished in the United States. The societies which meet at Cincinnati and their officers are as follows:

DEPARTMENT OF SUPERINTENDENCE

President—Henry Snyder, superintendent of schools, Jersey City, N. J.

First Vice-president—Paul W. Horn, superintendent of schools, Houston, Tex.

Second Vice-president—E. C. Warriner, superintendent of schools, Saginaw, Mich.

Secretary—Ellor Carlisle Ripley, assistant superintendent of schools, Boston, Mass.

NATIONAL COUNCIL OF EDUCATION

President—Robert J. Aley, president, University of Maine, Orono, Me.

Vice-president—James Y. Joyner, state superintendent of public instruction, Raleigh, N. C.

Secretary—W. B. Owen, principal, Chicago Normal School, Chicago, Ill.

CONFERENCE OF NORMAL SCHOOLS DEPARTMENT

President—Dwight B. Waldo, president, State Normal School, Kalamazoo, Mich.

Vice-president—Thomas W. Butcher, president, State Normal School, Emporia, Kans.

Secretary—Waite A. Shoemaker, president, State Normal School, St. Cloud, Minn.

COMMISSION ON THE REORGANIZATION OF SECONDARY EDUCATION

Chairman—Clarence D. Kingsley, high-school inspector, Massachusetts Board of Education, Boston, Mass.

COMMITTEE ON AGRICULTURE

Presiding—A. V. Storm, professor of agricultural education, University of Minnesota, St. Paul, Minn.

NATIONAL SOCIETY FOR THE STUDY OF EDUCATION

President—J. M. Gwinn, superintendent of schools, New Orleans, La.

Secretary—S. Chester Parker, dean of the College of Education, University of Chicago, Chicago, Ill.

SOCIETY OF COLLEGE TEACHERS OF EDUCATION

President—W. W. Charters, dean, School of Education, University of Missouri, Columbia, Mo.

Secretary—Carter Alexander, professor of school administration, George Peabody College for Teachers, Nashville, Tenn.

AMERICAN SCHOOL PEACE LEAGUE

President—Randall J. Condon, superintendent of schools, Cincinnati, Ohio.

Secretary—Fannie Fern Andrews, 405 Marlborough St., Boston, Mass.

EDUCATIONAL PRESS ASSOCIATION OF AMERICA

President—John MacDonald, editor, *Western School Journal*, Topeka, Kans.

Secretary—Julia Fried Walker, business manager, *Educator-Journal*, Indianapolis, Ind.

CONFERENCE OF TEACHERS OF EDUCATION IN STATE UNIVERSITIES

Chairman—P. P. Claxton, United States commissioner of education, Washington, D. C.

ASSOCIATION OF STATE SUPERINTENDENTS

Chairman—M. P. Shawkey, Charleston, W. Va.

Secretary—W. D. Ross, Topeka, Kans.

NATIONAL COUNCIL OF TEACHERS OF ENGLISH

President—E. H. Kemper McComb, head of department of English, Manual Training High School, Indianapolis, Ind.

Vice-president—Edwin M. Hopkins, professor of English, University of Kansas, Lawrence, Kans.

Secretary—James Fleming Hosic, head of department of English, Chicago Normal College, Chicago, Ill.

CITY NORMAL SCHOOL ASSOCIATION

Chairman—Frank Webster Smith, principal, Normal Training School, Patterson, N. J.

INTERNATIONAL KINDERGARTEN UNION

President—Mary B. Page, director, Chicago Kindergarten Institute, Chicago, Ill.

Secretary—May E. Murray, editor, *Kindergarten Review*, Springfield, Mass.

NATIONAL CONGRESS OF MOTHERS AND PARENT-TEACHER ASSOCIATIONS

President—Mrs. Frederic Schoff, Philadelphia, Pa.

Secretary—Mrs. Arthur A. Birney, Washington, D. C.

SCHOOL GARDEN ASSOCIATION OF AMERICA

President—Van Evrie Kilpatrick, principal, Public School 26, New York, N. Y.

Secretary—Earl L. Finney, instructor, Minnesota Agricultural College, St. Paul, Minn.

STATE HIGH-SCHOOL INSPECTORS ASSOCIATION

Chairman—Joseph Stewart, University of Georgia, Athens, Ga.

Secretary—H. L. Terry, department of public instruction, Madison, Wis.

NATIONAL ASSOCIATION OF STATE SUPERVISORS AND INSPECTORS OF RURAL SCHOOLS

President—J. H. Binford, executive secretary, Cooperative Education Association of Virginia, Richmond, Va.

Secretary—Lester S. Ivins, supervisor of agricultural education, Lebanon, Ohio.

NATIONAL ASSOCIATION OF TEACHERS' AGENCIES

President—F. G. Webb, Atlanta, Ga.

Secretary—E. E. Olp, Chicago, Ill.

NATIONAL FEDERATION OF STATE TEACHERS ASSOCIATIONS

President—Charles S. Foos, superintendent of schools, Reading, Pa.

Secretary—Walter W. Remington, teacher, East Side High School, Denver, Colo.

THE RELIGIOUS EDUCATION ASSOCIATION

THERE will be held in Buffalo a convention of The Religious Education Association, discussing the topic "The Rights of the Child," bringing one hundred speakers for its thirty different meetings in the days March 4–7. Among the speakers will be: President John H. Finley, of the University of the State of New York; Bishop Charles D. Williams, of Michigan; Bishop Francis J. McConnell, of Denver; Dr. Graham Taylor, of Chicago; Rabbi Henry Berkowitz, of Philadelphia; Charles Stelzle, of New York City; Professor Walter Rauschenbusch; Mrs. Anna Garlin Spencer; President Robert L. Kelly, Earlham College; Professor Franklin Johnson, of Chicago; President George H. Hubbell, of Lincoln Memorial University; U. S. Commissioner P. P. Claxton; Mrs. Ella Lyman Cabot, of Boston; President Charles F. Thwing, of Western Reserve University; Professor Chas. S. Gardner, of Louisville; Professor W. S. Ahearn, of Des Moines, Iowa; and Professor E. D. Burton, of Chicago. Among the attractions of the convention will be an exhibit on child welfare in relation to education. Materials, pictures, charts, diagrams, gathered from all parts of the country will be shown illustrating present conditions and the best methods of providing for the proper development of children especially as to their moral and religious lives. The large Elmwood Music Hall has been engaged for all the afternoon and evening sessions and the morning sessions will be held downtown. All meetings will be open to the public. A complete program will be sent upon application to the headquarters of The Religious Education Association, at 332 South Michigan Avenue, Chicago.